JUNE 1947 VOL. 12 NO. 6

CU consumer reports

PUBLISHED MONTHLY BY CONSUMERS UNION

vacuum cleaners

men's white shirts

mechanical pencils

FM-AM radio-phonographs

soluble coffees

frozen foods

summer motor oils

summer touring

the stock plan house

new phonograph records

CU's movie poll

prices, profits & depression

consumer reports

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CU's policy on ratings

Product ratings represent the best judgment of staff technicians or of consultants in university, government, and private laboratories. Test samples are purchased on the open market by CU's shoppers. Ratings are based on laboratory tests, controlled use tests, authoritative opinion, experience of a large number of persons, or a combination of these factors. Interpretation even of test findings is a matter on which expert opinion may differ. It is CU's pledge that opinions affecting its ratings shall be as free from bias as it is possible to make them.

Letters

Dear CU:

May I compliment you on the new *Consumer Reports*. The arrangement of material and illustrations is better and the information, combining *Bread & Butter* with the *Reports*, more compact. Incidentally, the format compares more favorably with CU's stature than did those I have seen on past issues.

Dear CU:

In general, I was quite pleased with the new *Consumer Reports*. Most of it is swell, and some of the new features look very promising. I like particularly the section, "For the People," since one rarely hears about the work of the FTC in newspapers. The article on building a home now was also of interest.

Dear CU:

Your new format is excellent except for the gushing, sophomoric phonograph record reviews. Certainly you can have something more scholarly and musically intelligent.

¶ Most response has been favorable. CU's record consultant, author of a leading record book, is one of the most respected authorities in the field.

Dear CU:

The April 1947 issue is "on the beam." The movie poll is the best thing new in years. Also the fine medical reports, the reports on phonograph records, child care, auto upkeep and the inclusion of *Bread & Butter* into the *Reports* are all useful and needed data. It seems as though some new blood has gotten into the organization.

Dear CU:

Most of the added features are good, especially "For the People," but will you tell me why, in a magazine supposedly searching for the truth, I have to read the fanatical and fanciful opinions of E. F. Noyes, who seems to think anyone is crazy if they want their $1000 radio to harmonize with their 18th Century living room suite. Functional design is OK but tell Noyes to get his head out of the sack; there are other considerations, too.

Dear Mr. Noyes:

Congratulations to both you and Consumers Union for a fine idea. . . .

CHARLES P. PARKHURST, JR.
Assistant Curator
Albright Art Gallery

Dear CU:

I want to tell you how much we enjoyed the article on design in *Consumer Reports* and what a valuable additional feature we think it is. I was particularly impressed by your scathing remarks on unnecessary dirt-catching grooves which are one of my pet dislikes.

Dear CU:

Congratulations. . . . In general, the April issue is an improvement over prior issues because of the enlarged scope of the coverage on matters in which consumers have an interest. I believe, however, that there are still further matters in which the average consumer has a vital interest and lack of proper information thereon is annually costing him, in the aggregate, many thousands of dollars. I refer to the average person's utter lack of knowledge regarding the law of his community as it applies to the common and regular activities of his everyday life. . . .

¶ A department on such matters is under consideration.

Dear CU:

I just received my copy of the April issue of *Consumer Reports* and I hasten to voice my disapproval of the thin paper cover of the magazine.

¶ In today's paper market you take what you can get.

Dear CU:

Just a note to let you know how nice a change there is in the physical appearance of your April *Consumer Reports*. So clean looking and well laid out. It is a pleasure reading it now.

Dear CU:

Congratulations on your wonderful new format. Excellent taste to approve and authorize it, and the artist who laid it out and specified type did a beautiful job.

¶ The artist is LADISLAV SUTNAR, whose display work abroad won him a Grand Prix at the 1937 Paris Exposition. Since 1939 he has been in this country, designing industrial catalogues, product packaging, advertising and visual education displays.

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The Postwar Vacuum Cleaner

HOOVER WIZARD APEX EUREKA GE CO-OP HOUSEMAID KENMORE KIRBY ROYAL CADILLAC PREMIER HAMILTONBEACH WESTINGHOUSE UNIVERSAL REXAIR

The postwar vacuum cleaner market has an impressively large number of new cleaners to offer. The *Hoover* and the *Electrolux*, which headed the quality list in CU's previous tests of upright and tank types, respectively, have been nosed out of their leading positions. But, by and large, the new cleaners and the postwar models of older brands differ little from the run of prewar machines. The main differences lie in quantity of trim, in superficial design changes, and in price. Most cleaners now cost $10–$15 more than their predecessors.

In the largest survey of vacuum cleaners it has ever made, CU tested 18 upright, 13 tank, 3 stand models, and the new *Electrikbroom*, a cross between an upright and a tank. "Best Buy" among uprights is the *Wizard*, which sells for $49.95; among the tanks, "Best Buys" include the *Kenmore* at $56.50 and *Aldens* at $54.95. Two of the cleaners purchased for the test, the *Hoover* 27 and the *Super House Maid* 500 are omitted from the ratings because they have been superseded by other models.

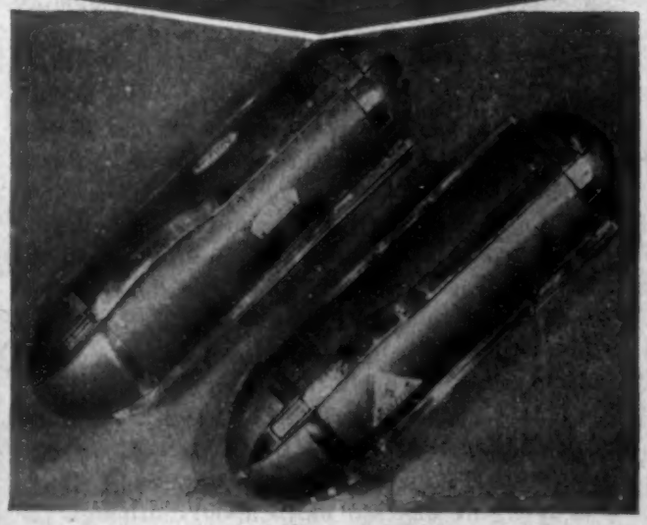
In general, within each type, cleaners vary in performance, durability, convenience in use, and economy. And there were several instances where cleaners, very similar in cleaning ability and construction but different in fittings and finishes, differed sharply in price. *Montgomery Ward's* tank at $54.95 was similar to the *Eureka* at $74.50; *Royalaire* tank at $59.95 to the *Royal* tank at $69.95; and, among the uprights, the *House Maid* at $39.95 and the *Co-op* at $44.95 were both very much like the *Cadillac* at $59.50.

Only one machine offered anything in the way of a unique feature among the uprights. This was the *Kirby*, which sells for $115.25 — the highest price found. When it is being used for purposes other than carpet cleaning, the handle can be detached and the machine slung on the back. This might have its uses in theory but, because the machine is very heavy, the practical value of the arrangement is highly questionable.

Uprights vs. tanks

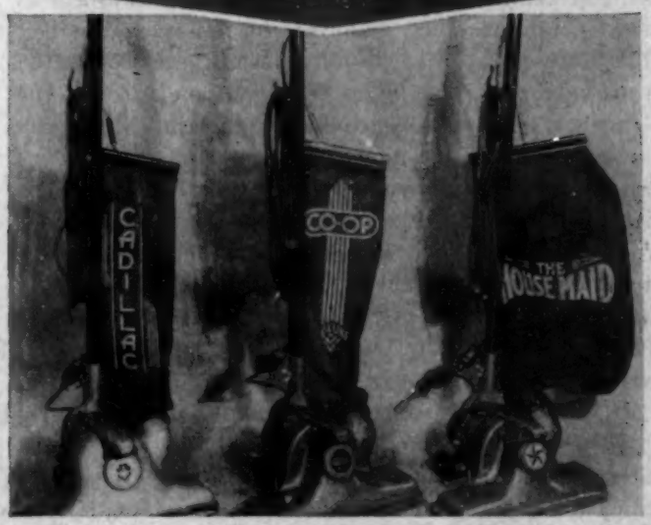
A good upright can easily handle wall-to-wall carpeting or a rug in each room. But for a variety of rugs, draperies, upholstery, radiators and other dirt-catchers, a tank type is better. It is true that upright cleaners re-

Same quality: $15 difference



They look alike and clean equally well, but the Aldens *(left) costs $54.95 while the* Monitor *(right) costs $69.50*

Same quality: $20 price range



At $59.50 the Cadillac *costs $15 more than the* Co-op, *$20 more than the* House Maid; *but quality is about the same*

move dirt faster than the tanks, and this advantage may or may not be offset for you by the efficiency with which the tank cleaners do an assortment of jobs. It is not a question of tanks being better than uprights or vice versa; it is a question of what you want from a vacuum cleaner. The first step in buying one should be an intelligent appraisal of that.

Even a fair cleaner can make a rug *look* clean, and do it quite rapidly. But the grit that does the damage to rugs, that eventually thins out the pile, is deeply imbedded. Even with a good machine it is necessary to go over a rug several times in order to remove this dirt; with a fair or poor machine, the process becomes tedious.

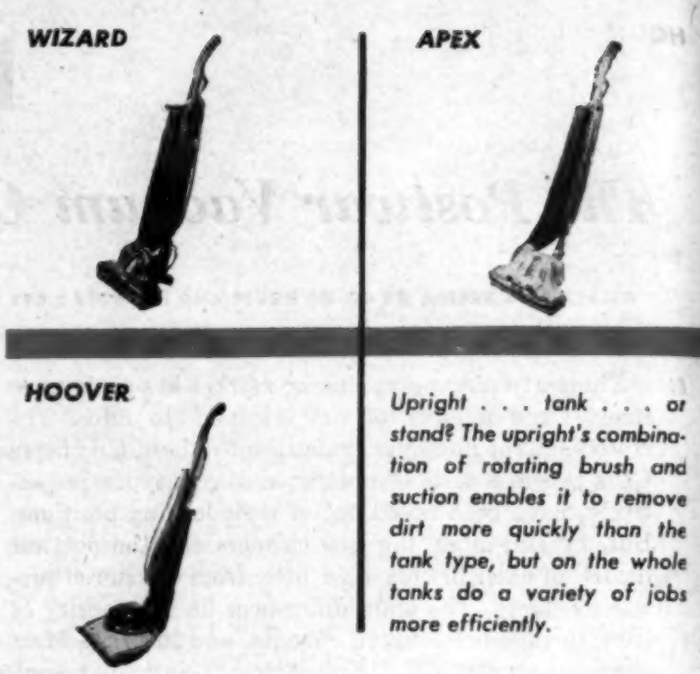
All vacuum cleaners have some wearing effect on your rugs. The rotating brushes in the uprights cause a small amount of wear, and the stationary brushes present on most of the tank carpet-cleaning tools cause about the same amount; those on the *Universal*, *Royal* and *Royal-aire* models caused more. In any event, wear from cleaning is seldom as great as ordinary household wear and tear. You should not leave an upright running on one spot, however — the brushes will wear down the rug in that spot. All uprights are constructed so that the brush can be kept from rotating, or lifted off the floor when attachments are used. For expensive Oriental rugs, it is best to use a cleaner with no brush at all.

The *Electrikbroom's* cleaning ability was only fair, but dirt-removal from the machine was easy. Its extremely light weight — 6¼ pounds — is, of course, of some advantage. It operates like an upright, but can be used as a tank, with attachments, after a simple insertion of a flexible hose.

Attachments

Slick sales talk has sold many an attachment which has turned out to be useless simply because it is too difficult to connect to the machine. Generally speaking, using attachments with an upright — an awkward process at best — can be a downright nuisance; the belt that rotates the brush usually has to be disconnected from the motor shaft before tools can be coupled to the cleaner. Removing a front plate to reach inside and pull the belt off its shaft is not too difficult, but replacement can be. Even after the chore of getting tools on an upright is completed, operation is not as efficient as it would be with a tank cleaner, because the upright's air stream does not have the pull that a good tank's suction does. With attachments, it is the suction that counts. Furthermore, tools for uprights are generally sold as extras.

The *Hoover*, *Kenmore*, *Eureka* and *Kirby* are fairly easy to fit with attachments. An Attach-O-Matic, a gadget which detaches the belt from the shaft, and to which all cleaning tools are coupled, is sold with both *Eureka* models. In both *Hoover* models attachments are connected to a special tube which fits into the side of the cleaner and automatically lifts the brush off the floor. Attachments for the *Kenmore* are fitted to a casting that covers the brush, preventing it from harming the rug. But dirt has to pass through the brush, some of it sticks, and then the brush has to be cleaned.



Upright . . . tank . . . or stand? The upright's combination of rotating brush and suction enables it to remove dirt more quickly than the tank type, but on the whole tanks do a variety of jobs more efficiently.

Nap adjustment

The nozzle of an upright must be set high enough to prevent excessive wear and low enough to clean efficiently. Different rugs call for different settings, which call, in turn, for some adjusting arrangement. The *Eureka* M262, *Kenmore* and *Westinghouse* had no nap adjustment — the balance between the two sets of wheels must be relied upon to tip the front of the machine forward, and so adjust it to the height of the pile. The arrangement was not considered satisfactory by CU technicians.

The most satisfactory arrangement for nap adjustment, of course, is the one that provides the highest number of settings. The *Apex*, *Hoover* 28 and *Wizard* had two; the *Eureka Deluxe*, three; the *Hamilton Beach*, five; the *Kirby*, seven; the *Singer*, eight. The *Royal*, *Cadillac*, *Co-op* and *House Maid* can be adjusted by a screw at any position between high and low. The same thing is possible in the *General Electric De Luxe*, *General Electric* AVF 17S, and AVF 26 and in the *Premier* 21, where adjustment is made by foot lever.

Maneuverability ranged from easy for the *Apex*, *Co-op*, *Eureka Deluxe*, *Eureka* M262, *Hamilton Beach*, *Hoover*, *Kenmore*, *Westinghouse* and *Wizard*, to difficult for the *Cadillac*, *Kirby* and *Royal*. For the most part, tank cleaners are easy to move about, although the wheels used instead of gliders on the *Sweeper-Vac* and *Hygienic Filtex* were a bit unmanageable.

HOUSE MAID

KENMORE

FILTER-QUEEN

ELECTRIKBROOM

ELECTROLUX

ALDENS

SANITIZOR

REXAIR

Ease of maneuverability in cleaning is important, generally more so than weight. In a two-story house, however, a heavy machine can be a burden. Weight ranged from the *Electrikbroom's* 6¼ pounds to 19½ pounds for the *Singer*. A cord winding arrangement accounts for the *Singer's* extra weight — a gadget which could be quite a help if it didn't tend to snap at you as the cord rewinds.

The choice of a foot or hand switch on the tank cleaners was also considered important. A hand switch on a tank means frequent bending.

Other features

In addition to examination for the foregoing features, uprights were checked for belt replacement, current leakage, wattage, rotating brush bearings, wheel type, bag removal, cord length and accessibility of motor brushes. And tanks were checked for the type of carpet cleaning tool they employed, attachments, strength and type of flexible hose and hose attachment. All available cleaning tools were checked; aside from minor design and construction differences, they appeared comparable. There seemed to be no real advantage in the inclusion of either two-speed motors or headlights.

The ratings which follow take into consideration all points that make for a machine that cleans rapidly and well, is easy to use, safe to use, and durable. Cleaning ability descriptions in the ratings are comparative within types — a "Fair" rating for an upright means fair compared to the best upright; a tank cleaner is compared with the best tank.

Vacuum cleaner ratings

Uprights

best buy

■ ■ — WIZARD Model 610 (Western Auto Supply Co.). $49.95. Light weight cleaner. Good dirt removal rate; good lint removal. Cleaner easy to maneuver. Three-position nap adjustment; four-position brush adjustment. Belt replacement easy. Light replacement easy.

acceptable

In estimated order of decreasing quality.

■ — APEX Model 601 (Apex Electrical Mfg. Co., Cleveland). $69.50. Medium weight cleaner. Excellent dirt removal rate; good lint removal. Cleaner easy to maneuver. Three-position nap adjustment; four-position brush adjustment. Belt replacement easy. Light replacement easy.

■ — EUREKA DELUXE Model D-272 (Eureka Williams Corp., Detroit). $79.50. Medium weight cleaner. Excellent dirt removal rate; good lint removal. Cleaner easy to maneuver. Three-position nap adjustment; three-position brush adjustment. Attach-O-Matic ($3.50 extra) automatically removes and replaces belt. Attachments connect directly to Attach-O-Matic. Light replacement difficult.

■ — HOOVER 28 (Hoover Co.). $69.95. Heavy weight cleaner. Dirt removal rate excellent; lint removal excellent. Cleaner easy to maneuver. Two-position nap adjustment; brush nonadjustable. Belt replacement easy. Light replacement difficult.

■ ■ — WIZARD Model 610 (see "Best Buy").

■ — GENERAL ELECTRIC DE LUXE Model AVF 19 (General Electric Co., Bridgeport, Conn.). $64.95. Medium weight cleaner. Dirt removal rate good; lint removal excellent. Cleaner fairly difficult to maneuver. Nap adjustment regulated by foot lever to any position, top to bottom; three-position brush adjustment. Belt replacement difficult. Light replacement easy.

■ — KIRBY Model 505 (Scott & Fetzer Co., Cleveland). $115.25. Heavy weight cleaner. Dirt removal rate excellent; lint removal excellent. Cleaner difficult to maneuver. Seven-position nap adjustment; continuous brush adjustment. Belt replacement easy. Light replacement easy. The price included attachments (not sold without them): wand,

Ratings continued on next page

radiator tool, coupler tube, upholstery brush, lifter grip, floor polisher, suction coupler, blower coupler, flexible hose, shoulder strap, crystalator, duster brush, spray gun, revolving floor polisher, massage cup.

■ — GENERAL ELECTRIC AVF 26 (General Electric Co.). $49.95. Light weight cleaner. Dirt removal rate good; lint removal excellent. Cleaner fairly difficult to maneuver. Nap adjustment regulated by foot lever to any position, top to bottom; three-position brush adjustment. Belt replacement difficult. Light replacement difficult.

■ — EUREKA M262 (Eureka Williams Corp.). $69.50. Medium weight cleaner. Dirt removal fair; lint removal good. Cleaner easy to maneuver. No nap adjustment; three-position brush adjustment. Attach-O-Matic ($3.50 extra) automatically removes and replaces belt. Attachments connect directly to Attach-O-Matic. Light replacement difficult.

■ — CO-OP DE-LUXE Model 141C (National Cooperatives Inc., Chicago). $44.95. Heavy weight cleaner. Dirt removal rate fair; lint removal good. Cleaner easy to maneuver. Nap adjustment regulated by screw which raises and lowers nozzle; continuous brush adjustment. Belt replacement difficult. Light replacement difficult.

■ — KENMORE AUTOMATIC IMPERIAL Model 711 Cat. No. — 711 (Sears-Roebuck). $51.95 plus postage. Light weight cleaner. Fair dirt removal rate; excellent lint removal. Cleaner easy to maneuver. No nap adjustment; continuous brush adjustment. Belt replacement easy. Light replacement difficult.

■ — GENERAL ELECTRIC AVF 17S (General Electric Co.). $57.95. Medium weight cleaner. Dirt removal rate fair; lint removal excellent. Cleaner fairly difficult to maneuver. Nap adjustment regulated by foot lever to any position; three-position brush adjustment. Belt replacement difficult. Light replacement easy.

■ — HOUSE MAID Model 141C Cat. No. — 2003 (Spiegel, Chicago). $39.95. Heavy weight cleaner. Dirt removal rate fair; lint removal good. Cleaner fairly difficult to maneuver. Nap adjustment regulated by screw which raises and lowers nozzle; continuous brush adjustment. Belt replacement difficult. Light replacement difficult.

■ — HAMILTON BEACH No. 14 (Hamilton Beach Co., Racine, Wis.). $52.50. Medium weight cleaner. Dirt removal rate poor; lint removal good. Cleaner easy to maneuver. Five-position nap adjustment; three-position brush adjustment. Belt replacement easy. Light replacement difficult.

■ — PREMIER Model PR 21 (Electric Vacuum Cleaner Co., Cleveland). $64.50. Medium weight cleaner. Dirt removal rate fair; lint removal excellent. Cleaner fairly difficult to maneuver. Nap adjustment regulated by foot lever to any position; nonadjustable brush. Belt replacement easy. Light replacement difficult.

■ — SINGER Model R5D (Singer Mfg. Co., Elizabethport, N. J.). $79.95. Heavy weight cleaner. Dirt removal rate fair; lint removal good. Cleaner fairly difficult to maneuver. Eight-position nap adjustment; nonadjustable brush. Belt replacement easy. Light replacement difficult. Equipped with an automatic rewind for electric cord.

■ — CADILLAC 143A (Clements Mfg. Co., Chicago). $59.50. Heavy weight cleaner. Dirt removal rate good; lint removal poor. Cleaner difficult to maneuver. Nap adjustment regulated by screw which lowers and raises nozzle. Nonadjustable brush. Belt replacement difficult. Light replacement difficult.

■ — ROYAL Model 215 (P. A. Geier Co., Cleveland). $54.50. Light weight cleaner. Dirt removal rate poor; lint removal good. Cleaner difficult to maneuver. Nap adjustment regulated by screw which raises and lowers rear wheel; three-position brush adjustment. Belt replacement easy. Light replacement easy.

■ — WESTINGHOUSE "CAPTAIN" Model F1-46 (Westinghouse Electric Corp., Springfield, Mass.). $58. Medium weight cleaner. Dirt removal rate poor; lint removal good. Cleaner easy to maneuver. Automatic nap adjustment; four-position brush adjustment. Belt replacement difficult. Light replacement difficult.

Cleaning ability: CU's test

The test for cleaning ability, developed in CU's laboratory, involves the use of one cleaner as a standard for its type, other cleaners being tested against it. The machines were tested on naturally dirtied rugs.

A section of the rug was first cleaned with the standard, then the same section was cleaned with the test machine, then with the standard — and so on until the amount of dirt removed in a cycle indicated that the rug was practically clean.

Comparison of rates of dirt removal of the two cleaners showed relative cleaning ability. Good correlation was achieved in duplicate tests made under different conditions of rug cleanliness and in cross checks of results for different cleaners.

In order of cleaning ability regardless of type (U = upright; T = tank type)		Over-all rating within type
HOOVER 28	U	3
APEX MODEL 601	U	1
EUREKA DELUXE Model D-272	U	2
KIRBY Model 505	U	6
ALDENS Cat. No.-2205L	T	3
MONITOR Model 6603	T	4
GENERAL ELECTRIC DE LUXE AVF19	U	5
KENMORE Model 722	T	2
GENERAL ELECTRIC AVF26	U	7
CADILLAC 143A	U	16
WIZARD Model 610	U	5
ROYAL Model 210	T	10
CO-OP DE-LUXE Model 141C	U	9
HOUSE MAID Model 141C	U	12
SINGER Model R5D	U	15
EUREKA M262	U	8
ROYALAIRE Model 186	T	8
KENMORE AUTOMATIC IMPERIAL 711	U	10
PREMIER Model PR21	U	14
GENERAL ELECTRIC AVF17S	U	11
ELECTROLUX	T	1
FILTER-QUEEN Model 200	T	12
SWEEPER-VAC Imperial T-100	T	7
ROYAL Model 215	U	17
WESTINGHOUSE "CAPTAIN" F1-46	U	18
AIR-WAY SANITIZOR Model 55A	T	11
HAMILTON BEACH No. 14	U	13
WIZARD Model 611	T	6
HYGIENIC FILTEX	T	9
APEX Model 140	T	5
ELECTRIKBROOM Model 1	T	12
UNIVERSAL Model E65E	T	15
WARD'S Cat. No.-136M	T	14
EUREKA Model W-75	T	16
REXAIR Model B	T	17

Tank & stand types

best buys

■■ — ALDENS Cat. No. — 2205L (Aldens, Inc., Chicago). $54.95 plus postage. Medium weight cleaner equipped with gliders. Dirt removal rate excellent; lint removal good. Fairly difficult to maneuver due to friction of the brush in rug cleaner. Equipped with foot switch. Attachments included three-piece wand, metal rug cleaner, metal wall cleaner, rubber dusting brush, composition radiator cleaner and a sprayer with metal top. Space for an upholstery cleaner, which was missing. Catches had sharp corners which might cut hands while removing bag.

■■ — KENMORE Model 722 Cat. No. — 722 (Sears-Roebuck). $56.50 plus postage. Medium weight cleaner equipped with two wheels in rear, small glider in front. Dirt removal rate excellent; lint removal good. Easy to maneuver. Equipped with foot switch. Attachments included two-piece wand, metal rug cleaner, one wood and metal wall cleaner and floor cleaner, composition dusting brush, upholstery cleaner, radiator cleaner, a sprayer with a composition top, composition vaporizer and a felt floor polisher.

acceptable

In estimated order of over-all quality.

■ — ELECTROLUX (Electrolux Corp., NYC). $69.75. Light weight cleaner equipped with gliders. Dirt removal good; lint removal good. Easy to maneuver. Equipped with foot switch. Attachments included a metal rug cleaner, one metal wall brush, one metal floor brush, metal upholstery cleaner, composition radiator cleaner, dusting brush, sprayer and a metal vaporizer.

■■ — KENMORE Model 722 (see "Best Buys").

■ ■ — ALDENS Cat. No. — 2205L (see "Best Buys").

■ — MONITOR Model 6603 (Monitor Equipment Corp., NYC). $69.50. Medium weight cleaner equipped with gliders. Dirt removal rate excellent; lint removal good. Fairly difficult to maneuver due to friction by brush in rug cleaner. Equipped with foot switch. Attachments included three-piece wand, metal rug cleaner, metal wall cleaner, composition radiator cleaner, rubber dusting brush, and a sprayer with metal top. Catches had sharp corners which might cut hands while removing bag.

■ — APEX Model 140 (Apex Electrical Mfg. Co., Cleveland). $69.50. Medium weight cleaner equipped with gliders. Dirt removal rate fair; lint removal good. Easy to maneuver. Equipped with foot switch. Attachments included two-piece wand, metal rug cleaner, rubber wall cleaner and dusting brush, composition upholstery cleaner, radiator cleaner, composition vaporizer and sprayer with composition top.

■ — WIZARD Model 611 (Western Auto Supply Co.). $69.95. Medium weight cleaner equipped with gliders. Dirt removal fair; lint removal good. Easy to maneuver. Equipped with foot switch. Attachments included two-piece wand, metal rug cleaner, rubber wall cleaner and dusting brush, composition upholstery cleaner, radiator cleaner, composition vaporizer and a sprayer with composition top.

■ — SWEEPER-VAC IMPERIAL Model T-100 (Holland-Rieger, Sandusky, Ohio). $69. Medium weight cleaner equipped with four wheels. Dirt removal good; lint removal good. Easy to maneuver. Equipped with hand switch. Cleaner had a plug for a foot switch, which was found to be a blind. Attachments included two-piece wand, metal rug cleaner, rubber wall cleaner and dusting brush, composition upholstery and radiator cleaners, composition vaporizer and a sprayer with composition top.

■ — ROYALAIRE Model 186 (P. A. Geier Co.). $59.95. Light weight cleaner equipped with gliders. Dirt removal rate good; lint removal good. Difficult to maneuver due to friction of brush in rug cleaner; brush caused excessive abrasion of carpet. Equipped with foot switch. Attachment of flexible hose good. Attachments included two-piece wand, metal rug cleaner, composition radiator cleaner, composition upholstery cleaner, equipped with small brush, rubber and composition dusting brush, one wood and plastic wall cleaner.

■ — HYGIENIC FILTEX Model 1 (Filtex Corp., Los Angeles). $94.50 in Plainfield, N. J. (distributors are allowed to set their own retail price). Heavy weight cleaner equipped with four wheels. Tank had a coated cardboard body with metal ends. Dirt removal rate fair; lint removal good. Easy to maneuver. Equipped with foot switch. Attachment of flexible hose good. Attachments included two-piece wand, metal rug cleaner, metal upholstery cleaner, wood wall cleaner with metal connections, composition radiator cleaner, rubber dusting brush. sprayer with composition top, metal vaporizer, felt floor polisher and filter pad.

■ — ROYAL Model 210 (P. A. Geier Co.). $69.95. Medium weight cleaner equipped with gliders. Dirt removal rate good; lint removal good. Difficult to maneuver due to friction of brush in rug cleaner; brush caused excessive abrasion of carpet. Equipped with foot switch. Attachment of flexible hose good. Attachments included two-piece wand, metal rug cleaner, metal wood and plastic wall cleaner, two composition upholstery cleaners, one equipped with small brush, composition dusting brush, composition radiator cleaner, metal vaporizer, sprayer with composition and metal top, and a felt floor polisher.

■ — AIR-WAY SANITIZOR Model 55 A (Air-Way Electrical Appliance Corp., Toledo, Ohio). $87. Consists of a medium weight stand with the fan and motor at the bottom. Upright section contains a paper bag which can be thrown away after using, eliminating the need for cleaning bag. Dirt removal rate fair; lint removal good. Easy to maneuver, but tank must remain stationary as any movement tends to tip it. Equipped with foot switch. Attachment of flexible hose good. Equipped with two-piece wand, metal rug cleaner, metal wall cleaner, metal upholstery cleaner, rubber dusting brush, composition radiator cleaner, felt floor polisher and extra paper bags.

■ — ELECTRIKBROOM Model No. 1 (Regina Corp., Rahway, N. J.). $39.50. Light weight cleaner which is used as an upright or push broom. Its light weight (6¼ lb.) makes it easy to use and carry around. Dirt removal rate poor compared to an upright, fair compared to a tank-type cleaner. Lint removal good. While it is used as an upright, it has no light, rotating brush, or nap adjustment. Easily converted for use of attachments and as such is laid flat and handles as easily as any tank. Equipped with a hand switch.

■ — FILTER-QUEEN Model 200 (Health-Mor Sanitation Systems, Inc., Chicago). $94.75.

Take care!

The life and efficiency of your vacuum cleaner depend largely on how you care for it. Read the directions carefully; follow oiling instructions the same way. Here are some further tips:

- Bags and filters: Accumulated dirt increases back pressure, lowers vacuum effect. Empty the bag frequently. In tank cleaners, a dirty filter cuts down efficiency for much the same reason. Examine filter occasionally, clean or replace as required.
- Rotating brushes: Brushes on uprights should protrude about 1/16 inch beyond nozzle. Place a card across it to check the distance. Worn brushes must be adjusted.
- Cords: A worn cord is a fire and shock hazard; replace it promptly. All upright cords were attached with cable reinforcement of spring wire or heavy rubber.

Heavy weight cleaner which consists of an upright metal container with cover. The motor and fan mechanism are attached to the cover with a filter paper cone protecting them from dust. Dirt is collected in the pot which can then be washed or brushed out. Dirt removal rate good for tank-type cleaners; lint removal good. Stand moves easily, but rug cleaner is fairly difficult to maneuver due to friction by the brush. Equipped with hand switch. Attachment of flexible hose good. Equipped with two-piece wand, metal rug cleaner, composition upholstery and radiator cleaner, metal vaporizer, rubber and composition dusting brush, sprayer with metal top, felt floor polisher and extra filter cones. All attachments had metal connectors.

■ — WARD'S Cat. No. — 136M (Montgomery Ward). $54.95 plus postage. Light weight cleaner equipped with two wheels in rear and small glider in front. Tank had a coated cardboard body with metal ends. Dirt removal rate fair; lint removal good. Easy to maneuver. Equipped with hand switch. Attachments included two-piece wand, metal rug cleaner, wood wall cleaner, metal upholstery cleaner, wood dusting brush, composition radiator cleaner, composition vaporizer and sprayer with metal top.

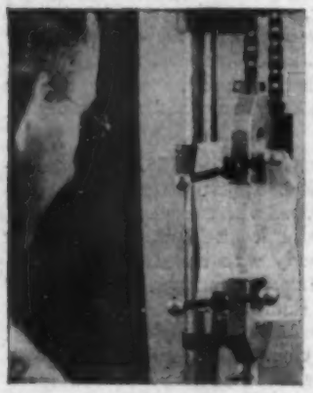
■ — UNIVERSAL Model E65E (Landers, Frary & Clark, New Britain, Conn.). $74.95. Medium weight cleaner equipped with gliders. Dirt removal rate fair; lint removal good. Difficult to maneuver due to friction of brush in rug cleaner; brush caused excessive abrasion of carpet. Equipped with foot switch. Attachment of flexible hose poor. Attachments included two-piece wand, composition rug cleaner with metal connector, wood and rubber wall cleaner with metal connector, composition radiator cleaner, composition upholstery cleaner and dusting brush, glass and metal vaporizer and sprayer with metal top.

■ — EUREKA Model W-75 (Eureka Williams Corp.). $74.50. Medium weight cleaner equipped with two wheels in rear and small glider in front. Tank had cardboard body with metal ends. Dirt removal rate poor; lint removal good. Easy to maneuver. Equipped with hand switch. Attachments included two-piece wand, metal rug cleaner, composition wall cleaner with metal connector, composition upholstery cleaner, radiator cleaner, composition dusting brush, vaporizer and sprayer with composition top.

■ — REXAIR Model B (Rexair Inc., Detroit). $92. Medium weight cleaner which consisted of a metal container with a rubber gasket over which the motor and fan mechanism fits. Dirt removal rate very poor; lint removal good. The only advantage of this type lies in the fact that dirt is caught by water in the metal container and can be easily disposed of. Claims for humidification of room were not borne out by tests. Easy to maneuver. Equipped with hand switch. Attachments included two-piece wand, metal carpet cleaner, metal wall cleaner, metal upholstery cleaner, rubber dusting brush, metal vaporizer, sprayer with metal top and felt floor polisher.

Men's White Shirts

Well-constructed white shirts cost more than twice what they did in 1941 — and are harder to find



Tensile strength test for cloth

Perhaps you thought your white shirt troubles were over when the shortage ended. Plenty of white shirts are available now — including some good ones at $4.50 and up. CU examined 31 brands. But 8 of these, also tested in 1941, show an average price rise of 152% accompanied by a decrease in fabric quality, in accuracy of size specifications, and in design and construction.

Back in 1941 those 8 shirts cost from $1.29 to $2. The same 8 broadcloth shirts now cost from $3 to $5. Good broadcloth should have a high thread count — about 140 warp and 70 filling threads per inch — but 5 of the 8 had lower thread counts than in 1941. And of all the 25 broadcloth shirts tested this year, only 11 had high warp counts, while only 7 had high filling counts.

Both broadcloth and balloon cloth are woven from long staple mercerized cotton. Balloon cloth, however, has about as many warp as filling threads, while broadcloth has about twice as many warp as filling yarns, giving it a fine crosswise rib. Balloon cloth counts varied from 87 warp and 86 filling, to 134 warp and 120 filling. All the shirts were made of preshrunk material and none of them shrank in washing.

In 1941, 2 out of 14 shirts tested did not meet size standards. This year, 14 out of 31 were so poorly sized as to be "Not Acceptable."

Shirt design and construction determine comfort and durability as well as appearance, for improperly fitting garments wear out most rapidly at the points of strain. Here are some points to remember:

Collar: A collar that is too high will wear out at the neck fold. Poorly tailored collars not only look untidy, but wear rapidly because of the extra pressure required to iron them; the points should be flat, evenly stitched and equal in length. If you prefer your collars stiffened, make sure they are made of extra-heavy fabric: stiffened collars do not give easily, so are subject to abrasion and wear. Turning up a stiffened collar before the shirt is laundered will keep some of the friction off the fold.

Buttons: Buttons should be smooth, pearly, even in thickness and firmly attached through four holes. Buttonholes should be reinforced by a bar-tack at each end.

Front panel: Twelve of the shirts tested had only one row of stitching on the front panel. This saves one manufacturing operation and is supposed to make for a smooth shirt front. Actually it makes for a loose edge to catch in the iron, and a smooth front and a stronger front besides can be achieved with the extra seam. Be sure any interlining on the panel is of the same material as the shirt — different materials pucker with shrinkage.

Sleeves: Both for good appearance and good wear, sleeves should start at the edge of the shoulder. Shirts that droop over the arm strain the shirt back. And if the back is too small, both the sleeves and back are strained. Sleeves should be cut straight, with threads running parallel to the top fold. In good quality shirts, the sleeves are cut from one piece of material; in lower quality shirts, they are often cut from two pieces to save material. It doesn't affect durability or appearance.

Cuffs: Fullness at the cuff should be evenly distributed. The placket seam should be bar-tacked or reinforced with material to take the strain. Plackets on the cuffs of three of the shirts tested were too small to permit ironing the cuff flat without straining the seam severely.

Yokes: Yoke seams should be curved downward slightly to take up shoulder muscle stretch, yet 7 of the shirts tested had straight-cut yokes. Furthermore, 6 omitted gathers at the yoke. Pleats or gathers, providing for back fullness, should be evenly distributed across the yoke seam, or located at the shoulder blades. Gathers at the center of the yoke seam are better than nothing, but give inadequate protection against strain caused by shoulder movement.

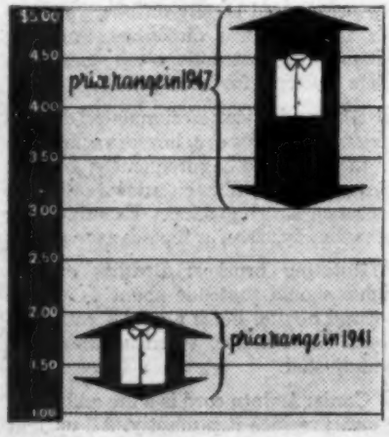


Chart shows price changes for 8 brands tested in 1941 and 1947

How CU tested

Laboratory tests were made for tensile strength, resistance to abrasion, weight and thread count. In addition, shirts were examined for presence of gussets, shape of yoke seams, setting-in of sleeves, cuffs and back; placket construction, type of panel facing, and number of stitches per inch on seams (19 is satisfactory). Shrinkage and conformity to size specifications before and after washing were also checked. Two shirts of each brand were tested. The ratings that follow are listed in decreasing order of quality.

White shirt ratings

acceptable

■—TYSON Pima King (Tyson Shirt Co., Norristown, Pa.). $6.95. Excellent, 2x1 ply broadcloth; excellent size specifications; good construction.

■—NATIONAL (National Shirt Shops). $4.95. Excellent balloon cloth; good size specifications; fair construction.

■—JORDAN MARSH (Jordan Marsh Co., Boston). $4.95. Excellent broadcloth; good size specifications; fair construction.

■—BOND STYLE MANOR Super DeLuxe (Bond Clothes). $5.95. Good, 2x1 ply broadcloth; excellent size specifications and construction.

■—SUPRE-MACY (R. H. Macy & Co., NYC). $4.98. Good broadcloth; good size specifications; good construction.

■—BRENT Cat. No.—613 (Montgomery Ward). $5 plus postage. Good, 2x1 broadcloth; excellent size specifications; fair construction.

■—VAN HEUSEN VH 400 (Phillips Jones Corp., NYC). $4.50. Good broadcloth; good size specifications; good construction.

■—TOWNCRAFT (J. C. Penney Co.). $3. Fair broadcloth; excellent size specifications; poor construction. Sleeve placket too small.

■—ARROW DALE (Cluett Peabody & Co., Troy, N. Y.). $3.95. Fair broadcloth; good size specifications; good construction.

■—WINGS (Wings Shirt Co., NYC). $2.95. Fair broadcloth; good size specifications; fair construction.

■—MARK TWAIN (Elder Mfg. Co., St. Louis). $3.98. Fair broadcloth; fair size specifications; good construction.

■—VAN HEUSEN Country 100 (Phillips Jones Corp.). $3.95. Fair broadcloth; good size specifications; fair construction.

■—ESSLEY (Essley Shirt Co., NYC). $3.95. Fair size specifications; fair construction.

■—AIRMAN FIGURE FIT (Shirtcraft Co., NYC). $3.45. Fair broadcloth; good size specifications; poor construction. No gathers at yoke.

not acceptable

The following brands were considered "Not Acceptable."

○—HALE BROS. (Hale Bros., San Francisco). $8.50. "Not Acceptable" because of skimping. Good, 2x1 ply broadcloth; fair size specifications except for excessive skimping in yoke measurement; good construction.

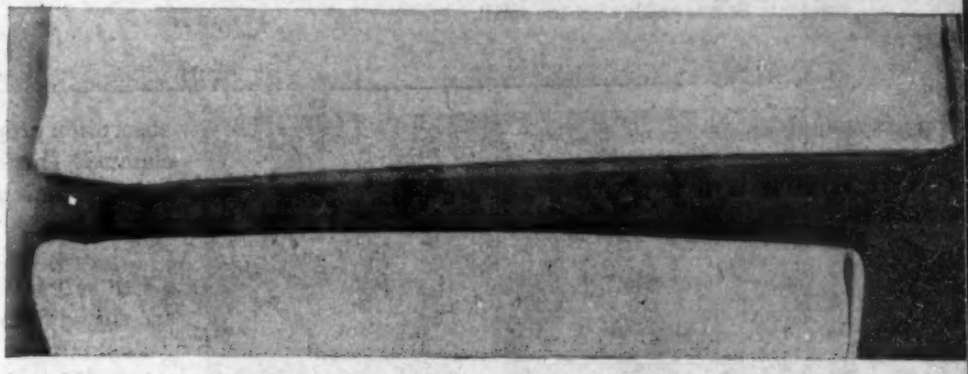
○—GIMBEL BROS. (Gimbel Bros., NYC). $3.98. "Not Acceptable" because of oversizing. Good balloon cloth; fair size specifications except for excessively oversized collar; poor construction.

○—JAYSON (F. Jacobson Co., NYC). $3.95. "Not Acceptable" because of skimping.

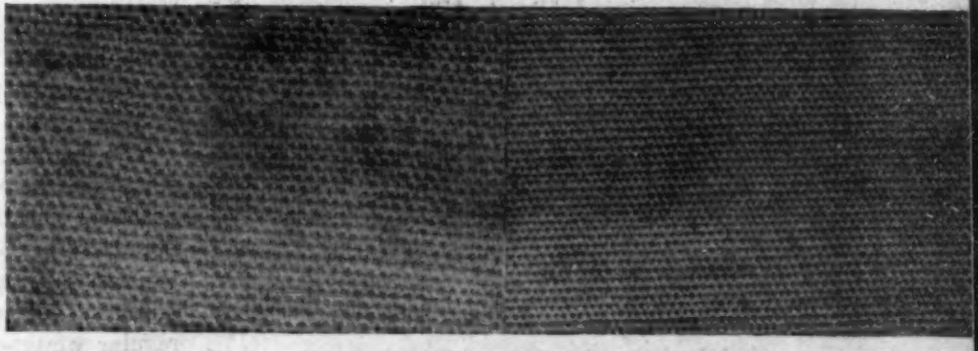
Ratings continued on next page

Watch out for these details of shirt construction

Is the shirt really sized as marked? On 11 of the shirts tested the collars were larger than marked size — and the error was not in marking



Has the material been skimped? Eighteen shirts tested were skimped in length, 12 in the yoke, 4 in the chest, and 2 in armhole measurements



Is the thread count as high as it should be? Magnification shows difference between the lowest broadcloth count (left) and the highest (right)

Are the sleeve plackets deep enough? If the placket is too small it is not possible to iron the cuff flat without straining seams severely

RATING OF SHIRTS—CONT'D

Fair broadcloth; fair size specifications except for excessive skimping in yoke measurement; good construction but no gathers at yoke.

O—YALE (M. H. Rosen Co., NYC). $3.98. Poor broadcloth; generally good size specifications but excessively skimped in length; good construction but no gathers at yoke.

O—LION OF TROY Cat. No.—2070 (Spiegel, Chicago). $5.95 plus postage. Poor balloon cloth; generally good size specifications except for excessive skimping in yoke measurement; excellent construction.

O—BREWSTER Supreme (Brewster Shirt Co., NYC). $3.85. Good broadcloth; poor size specifications; poor construction. Excessively skimped in chest and armhole measurements. Sleeve placket cut too small.

O—ARROW DART (Cluett Peabody & Co., Troy, N. Y.). $3.25. Poor broadcloth; good size specifications; excellent construction.

O—MANHATTAN DUKE SETLO (Manhattan Shirt Co., NYC). $5. Poor broadcloth; fair specifications except for excessively oversized collar; good construction.

O—BRENT Cat. No.—601 (Montgomery Ward). $3.50 plus postage. Poor broadcloth; fair size specifications except for excessive skimping in yoke measurement; fair construction.

O—MANHATTAN DUKE SETLO (Manhattan Shirt Co.). $3.95. Poor broadcloth; fair size specifications except for excessively oversized collar; good construction.

O—NOFADE (Commercial Shirt Co., NYC). $3.75. Poor balloon cloth; poor size specifications; excessively skimped in yoke and armhole; good construction.

O—TRU-VAL (Tru Val Mfrs., Inc., NYC). $3.85. Poor broadcloth; excellent size specifications; poor construction. Sleeve placket too small.

O—ARDSLEY (Shelburne Shirt Co., NYC). $3.98. Poor broadcloth; poor size specifications; excessively skimped in yoke measurement; good construction.

O—BRENT Cat. No.—600 (Montgomery Ward). $2.79 plus postage. Poor broadcloth; poor size specifications; sleeves excessively oversized; good construction but no gathers at yoke.

O—FREDERICK & NELSON (Frederick & Nelson, Seattle). $6.50. Poor balloon cloth; fair size specifications except for excessively oversized collar; fair construction.

O—KENILWORTH (The Fair, Chicago). $5. Poor balloon cloth; good size specifications; fair construction.

Summer Suits

Washable suits for men are on the way, but don't count on them yet

Men's summer suits are now being made out of almost every fiber known to the textile trade. Moreover, a summer suit need no longer mean, as it once did, a baggy, poorly tailored sack. It probably gets the same tailoring and styling that help your winter suits retain their shape. Out of the many fabrics used for summer suits, tropical worsted emerges as an all-time favorite.

Tropical worsteds are light in weight — 6½ to 9½ ounces per linear yard of 58-inch material — and are made of fairly tightly twisted yarns. With a firm, porous weave, they have adequate strength to keep a crease and resist excessive wrinkling. Because of the absorption properties of the wool, they do not become clammy. This Summer, for the first time, it is barely possible that *washable* tropical worsteds will be on the market.

At least, finishing processes have been developed which permit woolens to be washed without shrinkage or felting. The techniques are available, and it remains only for manufacturers to take advantage of them, which they do not seem to be doing as yet. If you *should* happen to come across a tropical worsted which is claimed to be washable, make sure the claim is backed by a guarantee that the whole suit is washable. It is possible that washable fabric might be used while the suit itself (because of the lining material or stitching) cannot be washed.

The introduction of a washable tropical worsted suit would be as big an advance in comfortable and practical clothing for men as the introduction of the popularly priced Palm Beach suit was in the early thirties. But until the day arrives, you'll have to go on caring for your tropical worsted as you would a regular winter-weight suit, and make the most of summer suits that can be washed.

Seersucker, for instance, is cool, very light weight, and washes easily. It never looks very well, but no one ever expects it to. Palm Beach suits made of a cotton and mohair combination are claimed to be washable. The Goodall Company (Cincinnati, O.) says it has given a number of laundries washing instructions, and you can find out from the company if one is located in your neighborhood.

Recent developments in finishing techniques for rayon and rayon combinations control shrinkage and creasing. If properly finished, these suits can be washed, and they have the added advantage of being light in weight and porous.

Speed-o-matic Camera

"The biggest, newest thing in cameras since the year 1888" — the *Speed-o-matic* camera — has hit New York via Gimbel's department store. This is the same store that first gave the world the *Reynolds* ball-point pen. And the camera shares with the pen the distinction of being a revolutionary development that — in CU's opinion — long-suffering consumers could well do without.

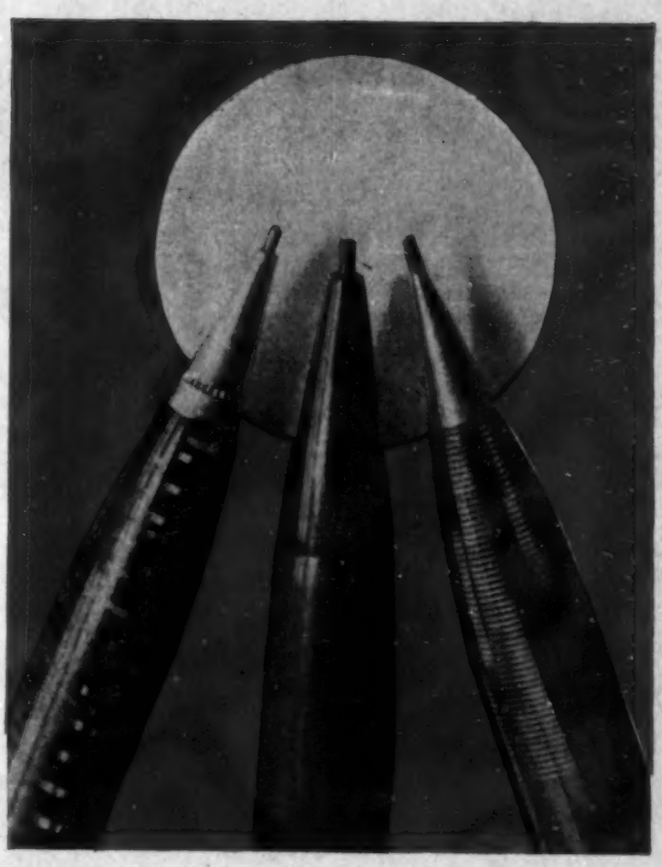
The *Speed-o-matic* takes pictures on paper negatives. Then, with a developing tank and chemicals furnished with the camera, the paper negative is turned into a positive print in the space of 15 or 20 minutes — all of this without the need for a darkroom.

The trouble with the *Speed-o-matic* starts with the quality of the prints; at best, they are much inferior to the average picture any amateur can take with a box *Brownie*. And the probability of getting best results more than once or twice out of a dozen pictures is small. In addition, the mess of mixing several chemicals and the involved (though ingenious) developing procedure are such as to wear the novelty off fast.

CU tested two *Speed-o-matic* cameras and developing outfits. The camera plus developing tank sells for $12.95. Film paper for 12 pictures, plus chemicals to develop them, costs $1. The camera is a box type with single shutter speed, and 5 aperture settings for differences in light. A built-in visual extinction-type exposure meter is supposed to indicate which aperture to use for proper exposure. Pictures were taken at all settings; the best results had a generally gray appearance with very poor contrast. But it takes a good deal of experience to get accurate readings under varied conditions with this type of meter. When the wrong aperture is used, the pictures are either much too light or too dark. Furthermore, the involvements of the developing process are such that even with proper exposure you may wind up with no picture at all. Another drawback: left and right are reversed in the print.

The developing process calls for 4 different chemicals and 3 rinses with water after each chemical is poured out. So for each 2 pictures (the papers come in pairs) the tank must be filled 16 times through a tiny funnel and a small hose which tends to kink. The process requires exact timing (45 seconds to 2 minutes), and the buyer is told to use one solution at 75°, though no thermometer is furnished. To top it off, unless the solutions are used with extreme care, and preferably with rubber gloves, they involve a hazard to skin, clothing, tables, floors, etc.

The *Speed-o-matic* camera is, in CU's opinion, "Not Acceptable." It should not be confused with the Land "one-minute" type of camera which has received so much publicity in recent months. No camera of this type has as yet appeared.



Beware the stubby-tipped pencil; it makes for awkward writing, and because lead must protrude so far, for broken points

Mechanical Pencils

Getting your money's worth is a hard job in this market

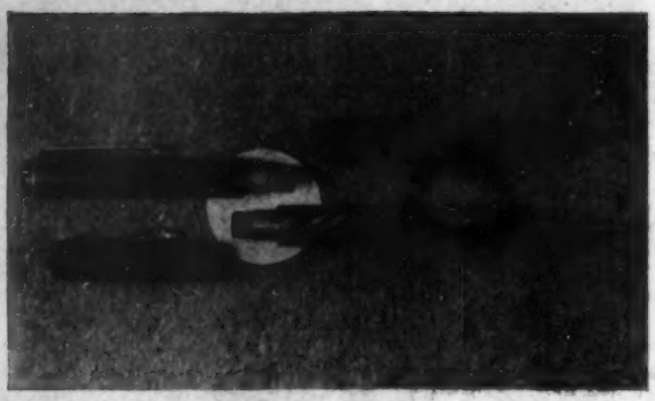
As a precision instrument, the mechanical pencil is subject to the limitations of all mass-produced precision instruments. There is bound to be some variation in parts. And this is just as true of a $5 *Sheaffer* as it is of a 20¢ *Scripto;* in fact, the more simply constructed *Scripto* is likely to be the better assembled.

So even if you are buying a *Sheaffer* H1, rated first in quality by CU, or a *Parker*, in which relatively high uniformity was found — examine before you buy: different samples in the same store may vary widely. Make sure the mechanism operates smoothly, that all removable parts remove and that all stationary parts stay put.

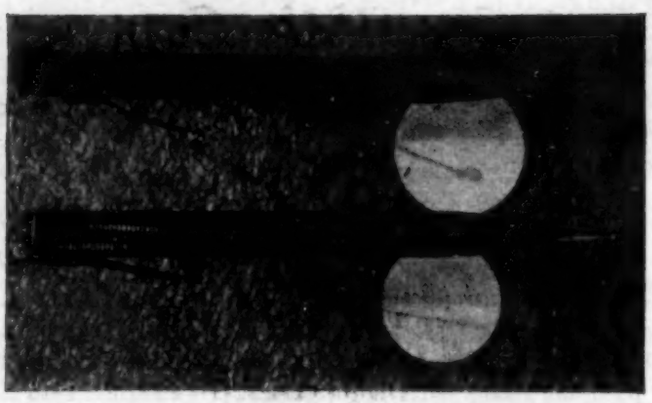
Price is no better an indication of quality than it is of uniformity. The entire range of quality is found between 20¢ and $2.50. Above $2.50, your money goes into dressing-up or brand name.

Construction

Mechanical pencils fall into two main types — screw or turn type, in which the lead is moved by twisting some part of the pencil, and the push type, in which lead is moved by pressing a button on the cap.



Erasers in the Wings *and* Peerless *were inaccessible*



Clips on Permapoint *and* Morrison *were easily sprung*

Of the screw pencils, the most common variety (propel-repel) has a clutch arrangement which grips the lead tightly, retracts it, propels it, and usually expels the last bit of lead left in the feed besides. The necessity for frequent reloading — which is the disadvantage of this type — is overcome in some brands by the use of long lead. Standard lead lengths are 1⅜ inches, 2¾ inches, and 4 inches.

Another variety of screw pencil (propel) has no clutch; a piston propels the lead but if you want to work the lead back into the pencil you must do this by hand. The *Autopoint* and *Norma* have this construction.

When you press the button on a push-type pencil (on the *Esterbrook* it's the entire cap) a collet grips the lead and pushes it down the barrel, then releases its grip when the button is all the way down. Release the button, and the open collet moves back to grip the lead again. As with the propel type, there is no method of lead retraction. You have to press the lead in yourself, while holding down the button.

Push pencils have an automatic feed. As one lead is used up, another drops into the feed mechanism from the storage chamber. All you have to do is to fill the hopper when it is almost empty. But a collet does not grip lead as tightly as a clutch, with the result that feed is often erratic in push-type pencils. If you write heavily, the lead may slip back into the barrel. Opinions of users of this type of pencil are about evenly divided.

Other features

Erasers: Practically all mechanical pencils have erasers, but some are extraordinarily difficult to get at. Most users want a pencil in which the eraser is easily available.

Leads: Leads come in two thicknesses. Standard lead is about 28% thicker than thin lead. Thin lead has been gaining in popularity lately, but it's purely a matter of personal preference. Some pencils, especially the ones designed for thin lead, have tip extensions to hold lead firmly and guide it in during loading.

Tips: The tips of some pencils are corrugated to keep your fingers from slipping as you write. And tips are sometimes removable so that if the lead jams there, the whole business can be taken off and cleared.

Clips: If you have a good deep pocket you can take advantage of the new military-style clips which permit practically the entire pencil to be hidden.

Fire hazard: A word of caution — almost all of the 28 pencils tested had nitrate plastic barrels, and were so inflammable that a cigarette tip seared a hole in them and a match caused them to flare up vigorously.

Multicolor pencils

Standard mechanical pencils can be used with colored lead. But if you have some special use for a pencil that carries two or more colored leads, you may find one of the multicolor pencils useful. Several are available; two were examined by CU.

The *Norma* pencils are available in 3-color and 4-color models. The barrel contains separate mechanisms for each color lead, and the leads are moved into writing position by corrugated fins protruding from slots in the side of the barrel — an arrangement that may make writing a bit uncomfortable.

The *Autopoint* is a 2-color, double-ended pencil. The mechanism does not retract lead, there is no provision for lead storage, and in order to load lead it is necessary to disassemble the entire pencil. When the pencil is clipped on a pocket one point is exposed. For these reasons the *Autopoint* multicolor pencil has been rated "Not Acceptable."

In rating pencils for convenience of use and general serviceability, the following construction features were considered: durability of the mechanism, workmanship, amount of play in the leads, durability of the finish, quality of the clip, shape and removability of the tip, lead length for which the pencil was designed, lead capacity and the possibility of losing parts. Propelling, retracting, expelling, loading and storing, plus the accessibility of the eraser, were considered in scoring for convenience.

The ratings that follow are in order of decreasing quality.

The $1.50 Sheaffer *and $1* Scripto *fell apart when light caps were removed*

acceptable

■ — SHEAFFER H 1 (W. A. Sheaffer Pen Co., Fort Madison, Iowa). $2.50. Streamlined bullet shape. Excellent construction, smooth propulsion, nonslip finger grip. Uses 2¾-inch thin lead; capacity 19 inches. Thin tip extension, exceptionally easy to change lead. Caps on several were too tight for convenient use of eraser. Military style clip.

■ — SHEAFFER H 40 (W. A. Sheaffer Pen Co.). $5. Same as H 1 above, but has gold-plated band and clip. Two clips corroded.

■ — PARKER 556 (Geo. S. Parker, Janesville, Wis.). $4. Excellent construction. Feed mechanism well-made, smooth and easy to operate. Uses 2¾-inch thin lead, capacity 44 inches. Military style clip.

■ — PARKER 51 (Geo. S. Parker). $5. Identical to PARKER 556 except that plastic cap is replaced by a metal cap, and barrel has nonslip finger grip.

■ — DIXON RITE-RITE (Rite-Rite Mfg. Co., Chicago). $1.25. Good construction. Uses 2¾-inch thin lead; capacity 25 inches. Thin tip extension; exceptionally easy to change leads. Smooth action; cap has socket-wrench grip on propelling mechanism.

■ — ESTERBROOK (Esterbrook Co., Camden, N. J.). $1.50. Push type, automatic loading. Good construction. Uses standard lead; capacity 26 inches. Feeds erratically at times, and lead may slip back into barrel occasionally. Tip of feed mechanism protrudes from barrel, holds ends of lead better than other push-type pencils. Cap resembles fountain pen cap.

■ — WATERMAN P-877 (L. E. Waterman Co., NYC). $4.25. Good construction. Uses 2-inch thin lead; capacity 26 inches. Smooth propulsion. Some caps too tight for convenient use of eraser. A bit bulky. Military style clip. Cap half metal, half plastic.

■ — WATERMAN P-1352, P-1357 (L. E. Waterman Co.). $5.75. Same as above, except cap is all metal, 1/10 of 14 K. gold-filled.

■ — EVERSHARP 102 BN (Eversharp, Inc., Long Island City, N. Y.). $1.50. Push type, automatic loading. Good construction. Uses standard leads; capacity 24 inches, easily loaded. Feeds erratically at times, and occasionally lead may be pushed back into barrel during writing. Not recommended for colored leads because of thick lip. Metal cap invertible to expose eraser.

■ — EVERSHARP 198 and 199 (Eversharp, Inc.). $2. Same as above, except that cap is plastic to match the body and the clip is better. Clips corroded, however.

■ — EVERSHARP 177 (Eversharp, Inc.). $3.75. Same as above, except for gold-filled band on barrel, and different clip design. These clips corroded also.

■ — EVERSHARP 160 (Eversharp, Inc.). $5. Same as above, except that the upper half of the barrel is made of gold-filled tubing.

■ — SCRIPTO K-770 (Scripto Mfg. Co., Atlanta). 20¢. Cheap construction, but quite serviceable. Uses 4-inch standard lead; no storage magazine. Propulsion action good. Ferrule holding eraser wobbly on one sample. An excellent buy for the money, but much lower in quality than preceding brand.

■ — SCRIPTO M-900 (Scripto Mfg. Co.). $1. Construction fair, occasionally poor assembly. Uses 4-inch standard lead, capacity 28 inches. Propulsion usually far too stiff. Plastic tip came off one sample; impossible to reassemble properly.

■ — AUTOPOINT (Autopoint Co., Chicago). 45¢. Poor appearance. Mechanism propels well, but is not designed for retraction of lead. Mechanism must be disassembled for loading lead. Uses 1⅜-inch standard lead, capacity 12 inches.

not acceptable

○ — SHEAFFER WGE (W. A. Sheaffer Pen Co., Fort Madison, Iowa). $1.50. Fair to poor construction. Propel action may easily become inoperable because metal-lined cap does not have slip-proof grip on inner mechanism. Uses 2¾-inch thin lead, capacity 25 inches. Thin tip extension. Propulsion very stiff on half of those examined. Invertible eraser cap is difficult to pull out.

○ — FINELINE (W. A. Sheaffer Pen Co.). $1. Same pencil as the SHEAFFER WGE, except that bodies are made in solid colors only.

○ — G.A.P. 98 (manufacturer not stated; bought at Whalen Drug Stores). 64¢. Poor to fair construction. Uses 1⅜-inch thin lead; capacity 30 inches. Inside shelf in tip catches lead point. Propulsion jerky; many stiff spots in movement.

○ — VENUS PRESIDENT 047 (American Pencil Co., NYC). $1.40. Construction poor. Uses 1⅜-inch standard lead, capacity 34 inches. Propulsion stiff on many, barrels slip on some.

○ — WEAREVER PACEMAKER 55 (David Kahn, Inc., North Bergen, N. J.). $1. Fair to poor construction. Lead occasionally slips back into barrel under heavy writing pressure, and has some side-play. Uses 1⅜-inch standard lead; capacity 20 inches, transparent magazine. Metal band corroded. Clutch on one sample did not grip lead after changing leads several times.

○ — PERMAPOINT No. 1100 (Eberhard Faber, Brooklyn). $1.11. Construction and workmanship inferior. Uses 1⅜-inch thin lead; capacity 22 inches. Lead retracts often under heavy writing pressure. Side-play in tip of one sample. Very poor clip. Metal bands tarnished and came loose.

○ — MORRISON (Morrison Pen Co., NYC). $1.50. Fair to poor construction. Uses 1⅜-inch standard lead; capacity 17 inches. Cap screws on 8 full turns, very inconvenient to use eraser. Clutch grip on lead loosened after some use. Clip easily damaged irreparably.

○ — JOFFE 225G (Joffe Pen Co., NYC). $1.04. Fair to poor construction. Uses 1⅜-inch standard lead; capacity 30 inches. Mechanism broke down; tip came loose.

○ — GUYNOR (Hollywood Pen Co., NYC). 89¢. Poor construction. Uses 1⅜-inch standard lead; capacity 30 inches. Lead slipped back into barrel easily; body came apart.

○ — PEERLESS (Peerless Pen Co., NYC). 95¢. Poor construction. Uses 1⅜-inch standard lead; capacity 20 inches. Mechanism broke down. Metal bands came off both samples. Barrel and tip separated on one.

○ — WINGS (Columbia Pencil Co., NYC). 79¢. Poor construction. Uses 1⅜-inch standard lead; capacity 17 inches. Mechanisms became inoperative after a very short time. Cap screws on 7 full turns.

Multicolor pencils

acceptable

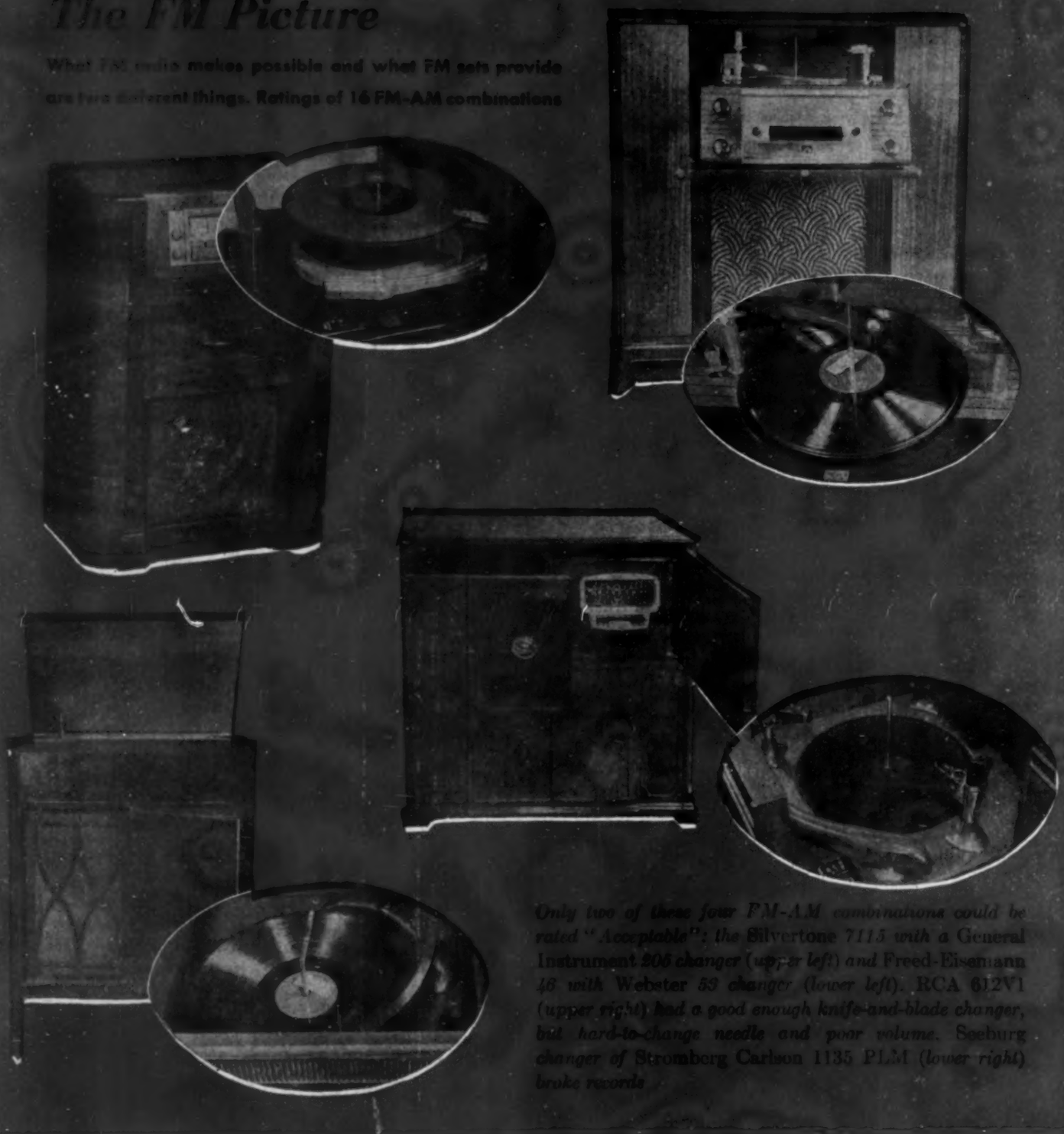
■ — NORMA No. 594 (Norma Pencil Corp., NYC). $10. Mechanisms for four separate colors in single casing. Good appearance and construction. Uses 1⅜-inch standard lead; capacity 44 inches. Requires leads of full thickness (manufacturing tolerances allow variations of about 0.002 inches) because lead grips are not flexible. Mechanisms not designed to retract lead. Somewhat bulkier than average. All metal casing, gold-filled. Available in various finishes: 3-color model from $4, 4-color from $4.50.

not acceptable

○ — AUTOPOINT (Autopoint Co., Chicago). 79¢. Two-color pencil, one point at each end. Regular AUTOPOINT mechanism, having no mechanical retraction, and requiring disassembling for loading leads. Uses 1⅜-inch standard lead; no storage magazine. One point is exposed when pencil is clipped on pocket; this is considered a hazard.

The FM Picture

What FM radio makes possible and what FM sets provide are two different things. Ratings of 16 FM-AM combinations



Only two of these four FM-AM combinations could be rated "Acceptable": the Silvertone *7115 with a* General Instrument *206 changer (upper left) and* Freed-Eisemann *46 with* Webster *53 changer (lower left). RCA 612V1 (upper right) had a good enough knife-and-blade changer, but hard-to-change needle and poor volume. Seeburg changer of* Stromberg Carlson *1135 PLM (lower right) broke records.*

FM radio can make possible a degree of listening pleasure that has never been approached by ordinary AM radio broadcasting and receiving. But what FM makes possible, and what is actually provided by available FM sets, are two very different matters. Not only are most FM sets very expensive, but none of those tested takes advantage of the high fidelity technically possible in FM broadcasting.

The troubles FM sets seem to be having are not technically insurmountable. The chances are pretty good that in a year or so not only will they be selling for less than they are at present, but they will be better sets as

"The troubles that FM sets seem to be having are not technically insurmountable. The chances are pretty good that in a year or so not only will they be selling for less than they are at present, but they will be better sets as well. Unless you are prepared to pay a steep price for an interim device, CU's advice is: wait a bit longer before you buy."

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well. Unless you are prepared to pay a steep price for an interim device, CU's advice is: wait a bit longer.

Sixteen FM-AM radio-phonograph combinations have been tested by CU. Two of these, the *Scott* and the *Fisher*, were covered in the April *Reports*. The 16 FM-AM sets — nine of which were rated "Acceptable" — fall into three price groups — $1000, about $500, and below $400. The three sets in the first bracket — the *Scott* 800B, the *Capehart* 114N2WA and the *Fisher* C-101 — were not as good as a $1000 price-tag would lead one to hope. The *Freed-Eisemann* 46 at $520 was the sole passable model among the four tested in this price group, and is a rather expensive interim device. The *Silvertone* 7115 at $142.50 was not bad enough to be rated "Not Acceptable"; this, together with a better one, the *Philco* 47-1230 at $269.50, might be recommended as "Best Buys" with the proviso that a year from now the same relative amount will almost certainly buy a much better set.

FM vs. AM

FM — for Frequency Modulation — has become a much more familiar term than its counterpart in standard radio broadcasting, AM — for Amplitude Modulation. Both FM and AM are transmitted by electromagnetic waves which are received by suitably designed radios. FM broadcasting differs from AM broadcasting on two main counts.

The first difference lies in the method of modulating the waves, or the method employed to change radio waves so that they can transmit audible sounds.

The other difference is in the wavelengths used. FM is transmitted at much shorter wavelengths than AM, and the wavelength band is much wider. In terms of frequency (wave cycles per second) the AM band is 535 to 1605 kilocycles (thousands of cycles); the FM band, from 88,000 to 108,000 kilocycles — about 100 times the frequency of AM, and 20 times the band width.

FM's wide band makes 100 channels available. And its high frequency limits the range of each station. Such high-frequency radiation cannot follow the curve of the earth much beyond the horizon; it cannot bend around corners. Therefore an FM station's range is limited to about 100 or 200 miles, and stations on the same frequency can be located about 100 miles apart without cutting into each other's territory.

Advantages of FM

Inherent in frequency modulation is the ability to reproduce the full range of audible sounds, from lowest bass to highest treble, and a broad range of volume. This lifelike, high-fidelity reproduction, however, along with the other things made possible by FM, is not fully achieved in existing FM sets.

A good FM set practically eliminates static and background noise. Neither sparking motors, from electric shavers to elevators, nor lightning storms, interfere with FM reproduction.

Unlike some AM stations, FM stations can broadcast right around the clock with no reduction in transmitting power. Standard broadcasting radiation increases in range after sundown to such an extent that some stations are required to reduce their power or go off the air completely in order to avoid interfering in another's territory.

FM makes it possible to have more than 3000 stations in the United States. Only about 1400 AM stations can operate in the country, and even then a number of them must share time.

In social terms, FM can make freedom of the air more than a hope. Because these stations are comparatively inexpensive to build and operate, many community groups should be able to have stations of their own. And lower costs make this type of broadcasting less dependent on a sponsor. Undoubtedly the singing commercial will worm its way into FM, but the necessity for it is minimized. For the time being at least, FM programming is of a very different variety from that of AM.

Disadvantages of FM

FM's main inherent difficulty lies in the limited range at which signals can be heard. Unless you live within about 100 miles of an FM transmitter, the best set you can buy won't be worth a penny. So before you make the investment, find out whether you will be able to hear present — or contemplated — FM broadcasts. There are about 800 FM stations operating now, and hundreds more on the way. An inquiry addressed to the Federal Communications Commission in Washington should bring an answer on this point.

Because the very-high-frequency FM waves cannot

Story continued on next page, column 2

The record changers

Automatic record changers ought to be able to handle records without jamming, breaking, chipping or scratching them. They should be able to give warped or "dished" records the same careful treatment, and to play all types of records in order, without skipping. They should be convenient to operate and to adjust, and the pickups should not wear records excessively.

Besides the tests made to rate changers on the above counts, checks were made on turntable speed and speed regulation; on the number of records handled, change-cycle time, change-cycle noise, and "wow," which results from uneven speed of rotation of the turntable.

To test record wear, phonographs were run on one record for 24 hours. The *Garrard* changer (used in the *Scott*) caused more wear on the record than any other changer; and it finally wore the "permanent" needle used by CU to a flat stub. Further inspection showed the fault to be in design of the pickup arm.

The three *Webster* models were outstanding. They had the desirable pusher-type changing mechanism with an automatic declutching action to prevent damage to records, changer and listener. The *Websters* handled all types of records safely and reliably.

The *Webster* changers are manufactured by Webster Chicago, in Chicago, and may be purchased at radio supply houses such as Lafayette in New York and Boston, Concord in Chicago and Atlanta, Allied in Chicago. The *Webster* 50 costs about $20; the 56, which has an automatic shutoff, $26.66. The *Webster* 70, which sells for $42.34, has an automatic shutoff, handles mixed sizes, and has a drive wheel which disengages automatically when the changer is shut off and so prevents rumble-producing flat spots.

A second type of changer — the *Seeburg*, for example — consists of flat plates, or knives, which slide in between records to separate the bottom one and to drop it. This is all very well for perfectly flat records, but can be a positive menace to slightly warped records. In CU's tests, almost all knife-and-blade mechanisms consistently broke or chipped warped records.

Both *Crosley* and *Zenith* claim their phonographs eliminate needle scratch. *Crosley* would have us believe this is accomplished by "The Floating Jewel Tone System," and *Zenith* does the same thing with the "Zenith Cobra Tone Arm."

True, needle scratch cannot be heard in either the *Crosley* or *Zenith*. But the makers have accomplished this by eliminating frequencies above about 4000 cycles. You, too, can eliminate needle scratch — by turning down the treble control and losing the very important high tones.

FM-AM combinations—cont'd

bend around obstructions such as tall buildings and mountain peaks, there are bound to be blind spots in FM coverage.

If you live in such a spot, and are but a few miles from the FM transmitter, an outside antenna may be of some help. But if you are more than 10 or 20 miles away, and the "shadow" is a bad one, even an outside antenna will not bring in FM signals. In general, however, an outside antenna is not required in a city; most sets have a built-in FM antenna. But the farther you are from the transmitter, the greater the likelihood that the extra antenna will be required.

Within a city that has an FM transmitter, there will be few locations that require an outside antenna. But if you do not live in an FM city, you can find out whether an FM station reaches you satisfactorily, either by trying an FM set, or possibly by asking the FM station. All metropolitan FM stations must make transmission measurements around a site before obtaining a license from the Federal Communications Commission and so are able to foretell the possibilities of reception in any given area.

The recent FM fracas

In CU's opinion, FM as a broadcasting technique is still the static-less, interference-free, lifelike affair its proponents claim it to be. In spite of recent attacks on FM, CU feels that whatever is wrong with FM can be corrected.

FM sets have been criticized because they "drift" — that is, they require frequent retuning. CU tests showed that the industry is beginning to remedy this situation. Drift is not bothersome on most "Acceptable" sets; some, however, do require retuning once or twice during the first half hour of playing.

Most FM radios are more difficult to tune properly than AM radios. An FM broadcast is usually received at three adjacent spots on the dial; the center spot, which furnishes clearest reception, may be difficult to find. A tuning eye can overcome this difficulty, but very few sets have one.

The fact that an FM receiver is subject to drift has added fuel to the fire of criticism based on "adjacent-station" interference. It is true that many FM sets do not have sufficient selectivity to prevent interference between stations when the weaker station is tuned in. The difficulty would seem to be created by the method the FCC used in assigning channels in blocks.

In New York City, block assignment works in the following way. Out of a possible 100 FM channels, 12 New York stations have been allocated channels within an over-all band 24 channels wide. Therefore, if the FM dial on your radio is six inches long, all 12 New York stations (when they are all operating) will come in

within a 1½-inch span, and there will be only ⅛ inch of dial between any two stations.

The subject of two-station interference has also received some stern attention from FM's critics. But two FM stations operating on the same frequency will seldom interfere, no matter how close or distant they may be geographically. Beyond about 200 miles they do not interfere because that is beyond their range. If closer together than 200 miles, and radiation does overlap, there will be practically no interference simply because of the nature of FM; instead of hearing both stations, you will hear one or the other. The two stations will be heard together only in the very small area where the two waves are almost the same strength. Those living in such an area can usually eliminate either one station or the other by using a directional antenna.

The only price of good selectivity in FM is that paid for designing it into the set. In AM, however, getting good selectivity means a sacrifice in tone quality. All but three FM sets passed tests for adjacent channel interference and drift. The *Stromberg-Carlson* 1135PLM did not drift with time, but went out of tune when the line voltage varied slightly. Turning on a 200-watt light bulb in the same room caused bad distortion. The *General Electric* 417 was rated "Not Acceptable" because of adjacent station interference. It was impossible to tune in WCBS-FM, which is adjacent to WNBC-FM, at CU's test location. The *Crosley* 146 CS had to be retuned four times in a half-hour listening period.

Tone

Tone rating starts with a blindfold jury of experienced "listeners." The jury's definition of a radio with good tone is fourfold: (1) Bass and treble passages are reasonably well balanced. (2) Very low pitched notes, as from tympani, and very high pitched notes, as from a piccolo, should be reproduced adequately. (3) Reproduction of the various instruments of an orchestra should be lifelike; a clarinet, for example, should be easily distinguishable from a violin, and the instruments should be distinguishable when playing together. (4) Speech should be clearly intelligible.

Tone in the *Crosley* 86 CR set tested was distorted to the point of painfulness, and was very boomy on the phonograph, even with the tone control turned to maximum treble and minimum bass position. The *General Electric* 417 set tested was very boomy on AM. Even with tone controls set for maximum treble and minimum bass, the treble tones were largely absent. FM tone on the *Sparton* 10AM76PA was distorted badly. FM tone on the *Westinghouse* H-117 was muffled, and the treble response very weak. On the *Westinghouse* H-119, the tone on AM, FM and phonograph was boomy and lacked treble notes even at the maximum treble setting. Speech reproduction on AM was almost unintelligible because of the lack of sibilants.

The CU listening jury heard a special test record, reproduced on high-fidelity phonograph and transmitted alternately to radio (left) and laboratory speaker (right)

How CU tested

Because ultimate performance of a radio cannot be predicted from an examination of design or engineering, all of the sets tested were first played for a blindfold listening jury.

Those with obviously poor tone were weeded out and rated "Not Acceptable"; the remaining sets were given standard radio performance tests. These included tests for acoustic frequency response, or ability to reproduce various pitches; maximum loudness; sensitivity, or the ability to pick up weak signals; interference rejection, or the ability to reproduce one station at a time; freedom from whistles; automatic volume control, or the ability to reproduce strong and weak stations with equal volume without resetting the volume control.

Special checks for FM included one for station drift with time (warm-up drift), and one for station drift with change in line voltage. Thirty seconds were allowed for tuning to an FM station after a set had been turned on. It was then played for 30 minutes and retuned when background noise or distortion became objectionable, so that the sets could be scored on the relative necessity for retuning.

Sets were checked for proper functioning, kept on a line voltage of 127 volts for 24 hours, then rechecked. In the line voltage drift test, each set was tuned to an FM station at a line voltage of 117 volts. The line voltage was then raised to 127 volts and the effect on the program noted. Results after stabilizing the voltage at 117 volts and then lowering it to 107 volts were noted.

(*See next page for ratings of FM-AM radios*)

FM-AM radio-phonograph combinations — ratings

The following ratings are in order of decreasing quality:

acceptable

■ — FREED-EISEMANN 46 (Freed Radio Corp., NYC): $520. Mahogany-finish cabinet. Control panel and record changer under lift-up lid. Moderately effective separate bass and treble controls. No push-buttons. Chassis must be removed to replace some tubes. No shock hazard, no short-circuit hazard.

FM Section: Fair tone, good volume, fairly high usable sensitivity, good automatic volume control, satisfactory interference rejection, satisfactory static suppression. Squelch circuit (eliminates interstation noise when tuning). Required retuning once in a half-hour listening period. Tuning eye. Had only the standard (100 mc) FM band. Built-in dipole antenna.

AM Section: Good tone, fairly good volume, low usable sensitivity, good automatic volume control, good interference rejection. Tuning eye. Built-in loop antenna. Two short-wave bands covering the 19- and 31-meter broadcasts.

Phonograph: Webster 56 record changer with Astatic L-75 crystal cartridge. Good tone, good volume, practically inaudible needle talk. Played 12 ten-inch records and 10 twelve-inch records. Shuts itself off after last record has been played. Switch for manual operation. Cycle time: four seconds (rather fast). Objectionable noise during changing cycle. Has a declutching device which prevents damage to the changer mechanism if the pickup arm is obstructed. Turntable speed about correct. Regulation excellent. Needle changed fairly easily. Weight at needle 1.8 oz. Record wear on sample tested was average.

■ — CAPEHART 114N2WA (Capehart Div., Farnsworth Television & Radio Corp., Fort Wayne, Ind.). $1145. Walnut-finish cabinet. Control panel and record changer under lift-up lids. Effective separate bass and treble controls. No push-buttons. Some shock hazard but no short-circuit hazard.

FM Section: Fairly good tone, fairly good volume, fairly high usable sensitivity, fair automatic volume control, satisfactory interference rejection, satisfactory static suppression. Required retuning once in a half-hour listening period. Tuning eye. Had only the standard (100 mc) band. Built-in dipole antenna. Tuning dial poorly calibrated.

AM Section: Fair tone, good volume, low usable sensitivity, excellent automatic volume control, good interference rejection. Tuning eye. Built-in loop antenna. Single, crowded short-wave band covering 19-, 25-, and 31-meter broadcasts.

Phonograph: Capehart 41E record changer with *Capehart* resistance pickup head. Fair tone, excellent volume, audible needle talk (audible noise directly from needle, without loudspeaker). Played 16 ten-inch or 16 twelve-inch records, or 16 records intermixed; turns them over automatically. Can play a "manual" or "AM" album of records completely automatically, but when playing a "DM" album (the kind which is used on regular record changers) the records have to be turned over by hand in the middle, as with any other automatic record changer. Shuts itself off after a predetermined number of plays (one to 50) or can be set to play the same records over and over indefinitely. Switch for manual operation but no arm rest provided for pickup; arm has to be held to the side by hand when putting a record on the turntable. Cycle time: 22 seconds (extremely slow). Objectionable noise during changing cycle. Turntable speed about correct. Regulation good. Starting position of pickup adjustable from top of changer. When needle is worn, the whole pickup head must be changed; this is easily done. Needle weight 1.0 oz. Record wear on sample tested was average.

■ — FARNSWORTH PM24-2M (Farnsworth Television & Radio Corp., Fort Wayne, Ind.). $440. Mahogany-finish cabinet. Control panel behind front door. Record changer in slide-out drawer. Moderately effective separate bass and treble controls. Eight mechanical push-buttons for either FM or AM. No shock hazard, no short-circuit hazard.

Needle changing made easy

Suppose the needle on your phonograph needs changing. Would you call a serviceman? You would if you had an *RCA* 612VI. *RCA's* instructions on this fine point, *written for radio servicemen*, start like this:

"Caution: Never bend the sapphire support wire. The nut on the sapphire holder assembly is locked by a light cement (such as Glyptal). Extreme care should be used when loosening the nut so that the twisting motion does not break the crystal. Remove the small nut and washer on the threaded shaft of the sapphire holder and push the shaft through the hole in the viscoloid until the sapphire holder assembly comes free. Use of a drop or two of acetone will facilitate the removal of the nut and shaft . . ."

FM Section: Fairly good tone, excellent volume, high usable sensitivity, good automatic volume control, poor interference rejection, satisfactory static suppression. Required no retuning during a half-hour listening period. Had only the standard (100 mc) FM band. Built-in dipole antenna. Tuning dial poorly calibrated.

AM Section: Fair tone, excellent volume, fair usable sensitivity, fair automatic volume control, very good interference rejection. Built-in loop antenna. Single crowded short-wave band covering 19-, 25-, and 31-meter broadcasts.

Phonograph: Farnsworth record changer (pusher type), with Astatic L-71 crystal cartridge. Good tone, excellent volume, fairly loud needle talk. Played 12 ten-inch and 10 twelve-inch records. Shuts itself off after last record is played. Cycle time: seven seconds (slow). Objectionable noise during changing cycle. Turntable speed about a quarter-tone too high on sample tested. Regulation poor. Needle changed fairly easily. Needle weight 1.2 oz. Record wear on sample tested was average.

■ — PHILCO 147-1230 (Philco Corp., Philadelphia). $269.50. Walnut-finish cabinet. Record changer behind tilting speaker baffle. Moderately effective combination bass and treble control. Five electric push-buttons for AM only. Some shock hazard but no short-circuit hazard.

FM Section: Good tone, excellent volume, fairly high usable sensitivity, satisfactory interference rejection, satisfactory static suppression. Required no retuning during a half-hour listening period. Had only the standard (100 mc) FM band. Built-in dipole antenna. Tuning dial poorly calibrated. Tuning range was two channels short of low end.

AM Section: Fair tone, fairly good volume, low usable sensitivity, fair automatic volume control, good interference rejection. Built-in loop antenna. Single crowded short-wave band covering the 19-, 25-, and 31-meter broadcasts.

Phonograph: Philco record changer (single knife-and-blade type) with *Philco* pickup. Good tone, excellent volume, audible needle talk. Played 12 ten-inch and 10 twelve-inch records. Switch for manual operation. Cycle time: seven seconds (slow). Objectionable noise during changing cycle. Has a declutching mechanism which prevents damage to the changer mechanism if the pickup arm is obstructed. Turntable speed about a quarter-tone too high on sample tested. Good regulation. Back of radio has to be removed in order to change needle. Needle weight 1.0 oz. Record wear on sample tested was average. Although this changer is of the knife-and-blade type, either because of the fact that there is only a single knife-and-blade or because of other design considerations, in CU's tests this changer played warped and "dished" records satisfactorily.

■ — SILVERTONE Cat. No. — 7117 (Sears-Roebuck). $814.50 plus shipping charges. Mahogany-finish cabinet. Pull-out tilting control panel. Record changer in slide-out

drawer. Moderately effective treble control only. Five mechanical push-buttons for either AM or FM. No shock hazard, no short-circuit hazard.

FM Section: Fair tone, fairly good volume, low usable sensitivity, satisfactory interference rejection, satisfactory static suppression. Required no retuning during a half-hour listening period. Had only the standard (100 mc) FM band. Built-in dipole antenna.

AM Section: Poor tone, good volume. Very low usable sensitivity, poor automatic volume control, poor interference rejection. Built-in loop antenna. No short-wave bands.

Phonograph: Utah 500 record changer (pusher type) with Astatic L-70 crystal cartridge. Good tone, fairly good volume, fairly loud needle talk. Played 12 ten-inch and 10 twelve-inch records. No switch for manual operation. Cycle time: six seconds (rather slow). Objectionable noise during changing cycle. Spring-belt drive slips which prevents damage to the changer mechanism if the pickup arm is obstructed. Turntable speed about a quarter-tone too high. Regulation very poor. Needle changed easily. Needle weight 1.6 oz. Record wear on sample tested was bad.

■ — PHILCO 1213 (Philco Corp.). $369.50. Walnut-finish cabinet. Control panel behind door in front. Record changer in slide-out drawer. Moderately effective separate bass and treble controls. Five electric push-buttons for AM only. Some shock hazard but no short-circuit hazard.

FM Section: Poor tone, excellent volume, fairly high usable sensitivity, good automatic volume control, fair interference rejection, satisfactory static suppression. Required no retuning during a half-hour listening period. Had only the standard (100 mc) FM band. Built-in dipole antenna. Tuning dial poorly calibrated. Tuning range two channels short at low end.

AM Section: Good tone, excellent volume, very low usable sensitivity, very good automatic volume control, fair interference rejection. Built-in loop antenna. Single, crowded short-wave band covering 19-, 25-, and 31-meter broadcasts.

Phonograph: Philco M-4 record changer (pusher type) with *Philco* pickup. Fair tone, good volume, audible needle talk. Played 11 ten-inch and 10 twelve-inch records. Switch for manual operation. Spindle has to be removed when unloading records from turntable. Cycle time: seven seconds (slow). Objectionable noise during changing cycle. Has a declutching mechanism which prevents damage to the changer mechanism if the pickup arm is obstructed. Turntable speed about correct. Good regulation. Pickup starting point adjustable from top. Needle changed fairly easily. Needle weight 1.1 oz. Record wear was average on sample tested. Drive wheel disengages when changer switch is shut off, thereby preventing rumble-producing flat spots.

■ — SILVERTONE Cat. No. — 7115 (Sears-Roebuck). $159.50 plus shipping charges. Walnut-finish cabinet. Record changer in slide-out drawer. Moderately effective treble control. Five mechanical push-buttons for either AM or FM which required a rather strong pressure to operate them. No shock hazard, no short-circuit hazard.

FM Section: Good tone, poor volume, fairly high usable sensitivity, good automatic volume control, fair interference rejection, satisfactory static suppression. Required no retuning during a half-hour listening period. Had only the standard (100 mc) FM band. Built-in dipole antenna.

AM Section: Fair tone, boomy on some speaking voices. Poor volume, very low usable sensitivity, practically no automatic volume control, poor interference rejection. Built-in loop antenna. No short-wave bands.

Phonograph: General Instrument 205 record changer (spindle cam type) with Astatic L-70 crystal cartridge. Boomy tone, fair volume, audible needle talk. Objectionable rumble. Played 12 ten-inch records and 10 twelve-inch records. No switch for manual operation. Loading and unloading of records awkward because of spindle cap which must be turned each time. Cycle time: seven seconds (slow). Objectionable noise during changing cycle. Speed of turntable on sample tested about a quarter-tone too low. Regulation good. Audible wow on sample tested. Needle changed easily. Needle weight 1.5 oz. Record wear on sample tested was average.

not acceptable

The following radio-phonographs have been rated "Not Acceptable" for the reasons stated. Order of listing is alphabetical.

○ — CROSLEY 86 CR (Crosley Corp., Cincinnati). $249.95. Rated "Not Acceptable" because the tone on FM was distorted, and because the tone on the phonograph was extremely boomy with an almost complete lack of trebles. Had a *Seeburg* knife-and-blade changer.

○ — CROSLEY 146 CS (Crosley Corp.). $389.95. Rated "Not Acceptable" because sample tested drifted excessively on FM; required retuning four times in a half-hour listening period. Had a *Seeburg* knife-and-blade changer.

○ — GENERAL ELECTRIC 417 (General Electric Co., Electronics Dept., Bridgeport, Conn.). $349.50. Rated "Not Acceptable" because speech reproduction on AM was almost unintelligible due to a lack of high tones, and because of extremely poor second adjacent channel interference rejection on FM.

○ — RCA 612V1 (Radio Corporation of America, RCA Victor Div., Camden, N. J.). $450. Rated "Not Acceptable" because it had insufficient phonograph gain (loudness); required a major repair operation to change the needle in the phonograph.

○ — SPARTON 10AM76PA (Sparks-Withington Co., Jackson, Mich.). $284.50. Rated "Not Acceptable" because the tone on FM was distorted. Had a *Seeburg* knife-and-blade changer.

○ — STROMBERG-CARLSON 1135-PLM (Stromberg-Carlson Co., Rochester, N. Y.). $595. Rated "Not Acceptable" because slight variations in line voltage caused detuning of the FM section. Had a *Seeburg* knife-and-blade changer.

○ — WESTINGHOUSE H-117 (Westinghouse Electric Corp., Home Radio Div., Sunbury, Pa.). $289.95. Rated "Not Acceptable" because the tone on FM was muffled and lacking in trebles, because the tone on AM was very boomy with almost unintelligible speech reproduction, and because the treble reproduction on the phonograph was extremely weak.

○ — WESTINGHOUSE H-119 (Westinghouse Electric Corp.). $375. Rated "Not Acceptable" because the tone on FM was muffled with a pronounced lack of trebles.

○ — ZENITH 9H081 (Zenith Radio Corp., Chicago.). $269. Rated "Not Acceptable" because the tone on FM was muffled with a noticeable lack of trebles, and because the reproduction of speech on AM was almost unintelligible due to the lack of high tones.

Progress report

Work on the following reports, among others, is now under way:

Portable radios	**Jellied soups**	**Electric clocks**
Electric fans	**Tomato juices**	**Slide projectors**
Tennis balls	**Can openers**	**Hand cleaners**
Ice cream mixes	**Egg beaters**	**Laundry soaps**

Although the best soluble coffees can't approach flavor and aroma of real coffee, they do offer conveniences. See below

Soluble Coffees

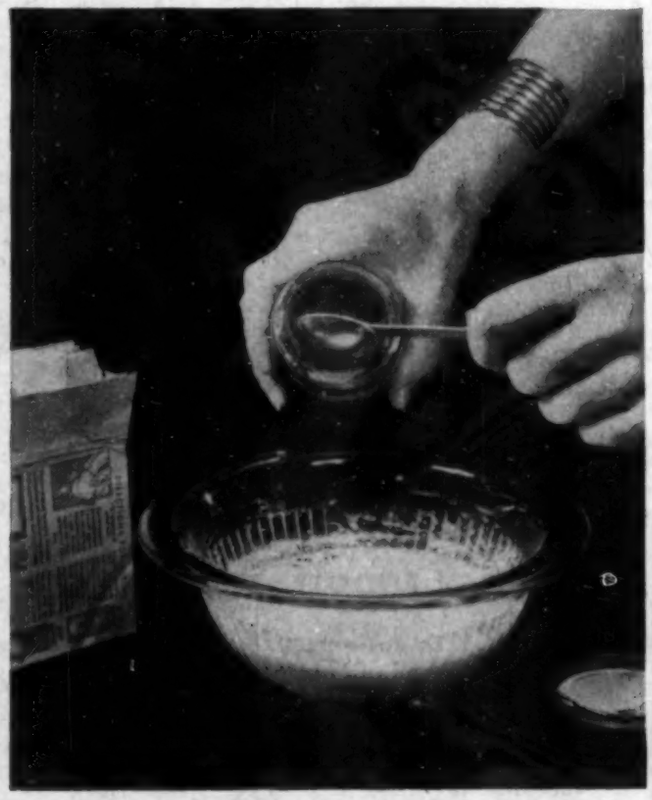
The rising cost of real coffee has given soluble products an edge on economy, but to enjoy them you've got to be after convenience, not aroma or flavor

The food trade says, in its own publications, that the best soluble coffees are far inferior in flavor and aroma to natural coffee, properly brewed. In the ads, on the radio and on the labels, the same products get a better billing as "full-bodied" . . . "roaster-fresh" . . . "a blend of magnificent coffee especially roasted, ground and brewed."

CU's taste panel found the trade comment more to the point than the advertising claims. Most of the 16 brands tested had no aroma at all, or if they did, it was not that of coffee. Some had a fair-to-good, but weak, coffee fragrance.

Possibly for this reason, consumer acceptance of soluble coffee has been slow. The first brand, a G. Washington product, appeared on the market in 1909, but

Soluble coffee can make a single cup quickly, to suit individual strength preference, and with practically no waste



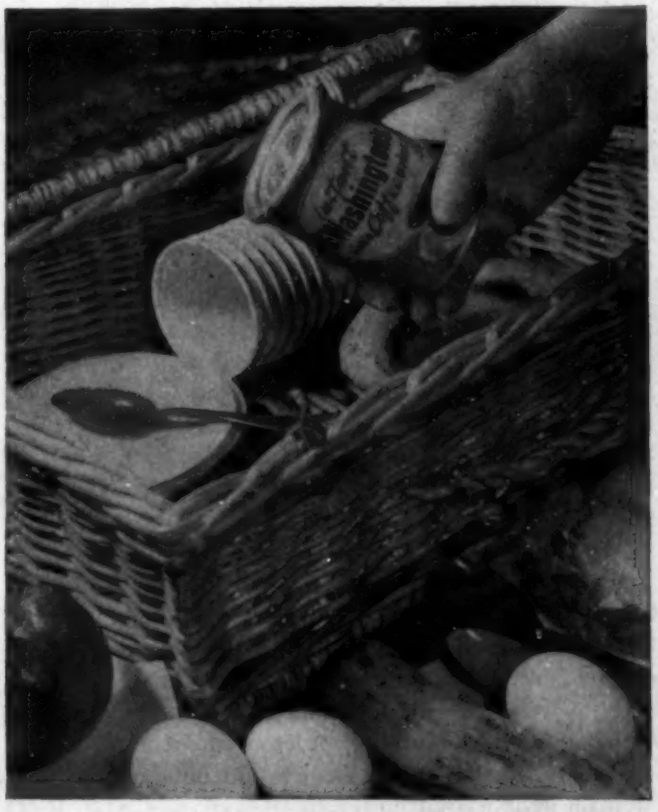
As a concentrated flavor for cooking, soluble coffee is more convenient than real coffee, which must be brewed first

until 1941, total sales of all brands averaged less than 1% of the coffee consumed in this country. Recently, however, soluble coffee has had a rise in popularity, and postwar sales are expected to bring the figure up to about 5%. CU shoppers found 15 brands of soluble coffee products on the market.

There are two types of soluble coffee: one is pure coffee extract, the other contains carbohydrate "fillers," such as dextrins, dextrose and maltose, in addition to coffee extract. In a complaint against *Nescafé*, the Food and Drug Administration ruled that a "filled" type may not be described as "coffee"; it may be called "café" or "coffee product."

Copywriters' claims notwithstanding, one type may be as good — or as bad — as another. It is argued that the addition of carbohydrates "locks in" and enhances the flavor, while making measuring more convenient by increasing bulk. Makers of pure extracts claim their coffee, with nothing added, is superior. But the two top brands, *Lily White* (all coffee) and *Chase and Sanborn* (filled), received the same flavor score, the highest of all brands tested. The lowest score went jointly to *Bailey's Supreme* (all coffee) and *Sol Café* (filled). So one type may be as good — or as bad — as another.

The product packaged under a given brand name, in this as in many other cases, may change in type. *Maxwell House*, originally a filled type, has been sold since May, 1946, as "100% pure coffee." *G. Washington's*, great-grandfather of them all, started out as a pure coffee extract but since November, 1946, has been distributed as a filled type, *G. Washington's Instant Soluble Coffee Product.*



Since it's prepared right in the cup, soluble coffee is handier to take along on a picnic lunch than natural coffee

All-coffee products generally cost about twice as much per ounce as the filled type. But cost becomes comparable because filled types usually require a larger measure per cup. Price surveys in Los Angeles and New York, where prices were about the same, showed wide variations in the price of any given brand. Two ounces of *Sanka* ranged from 46¢ (A&P) to 59¢ in New York; in Los Angeles the range was 35¢ (large chain store) to 59¢. Four ounces of *Nescafé* ranged from 38¢ to 49¢ in New York, and from 34¢ to 48¢ in Los Angeles. Ratings include highest and lowest prices found, as a guide to "Best Buys" in each brand.

Caution: soluble coffees are hygroscopic — they have a strong attraction for water. To avoid caking and loss of what flavor the product may have, avoid exposure to steam or hot water, use a dry spoon for measuring, and keep tightly closed in a dry space.

How CU tested

CU's eleven-man taste panel contained a majority of black coffee drinkers, but there were no major differences in judgment between black and non-black drinkers. Each brand was put into jars identified by number only, and marked to indicate the amount per cup recommended by the manufacturer. Duplicate samples for a second round of taste tests were numbered differently. If the coffee was too weak or too strong when made by directions, testers were instructed to discard it, and remake according to taste, recording the amount used. Individual tasters then rated the coffee for flavor, aroma and clarity as "Good," "Fair" or "Poor." About half the brands were judged to be too weak, and required from ¼ to ½ teaspoon more than label directions indicated.

Soluble coffees were examined also for sediment after a cup had been standing thirty minutes. *Ehlers* and *Copley* were the only brands which had an appreciable amount.

All brands were examined for iron particles which may appear in soluble coffees, perhaps from the grinding process. *Ehlers* and *Kup Kafay* were found to contain iron particles, and because this is an indication of poor manufacturing control, CU rated these two products "Not Acceptable."

As pointed out previously in the *Reports* (October, 1945) the average amount of caffeine per cup of soluble coffee — about 1.4 grains — is approximately the same as that in a cup of regular coffee. *Sanka* "97% caffein-free," which had not been previously tested, was found to contain less than 0.1 grain of caffeine per cup.

See next page for ratings of soluble coffees

Soluble coffee ratings

The following ratings list brands in order of decreasing flavor score, based on individual optimum strength for each of the tasters. The price for 10 cups is based on the strength considered most satisfactory by the majority of tasters.

acceptable

■ — LILY WHITE Pure Soluble Coffee (R. H. Macy & Co., NYC). 49¢ for 2 oz. (12.3¢).

■ — CHASE AND SANBORN Instant Soluble Coffee Product (Standard Brands Inc., NYC). 34¢ to 45¢ for 4 oz. (5.3¢ to 7¢). Contained dextrins, maltose and dextrose.

■ — SANKA Instant Coffee (General Foods Corp., NYC). 35¢ to 59¢ for 2 oz. (7.1¢ to 12¢). "97% caffein-free."

■ — G. WASHINGTON'S Instant Soluble Coffee Product (G. Washington Division, American Home Foods, Inc., Morris Plains, N. J.). 34¢ to 41¢ for 4 oz. (6.5¢ to 7.9¢). Contained dextrins, maltose and dextrose.

■ — NESCAFÉ (Nestle's Milk Products, Inc., NYC). 24¢ to 49¢ for 4 oz. (7.4¢ to 10.6¢). Contained dextrins, maltose and dextrose.

■ — BORDEN'S Instantly Prepared Coffee (Borden Company, NYC). 39¢ to 53¢ for 2 oz. (7.5¢ to 10.2¢).

■ — BARRINGTON HALL Coffee Instantly Prepared (Baker Importing Co., Minneapolis and NYC). 42¢ to 49¢ for 2½ oz. (7.7¢ to 8.9¢).

■ — MAXWELL HOUSE Instant Frozen Flavor (John L. Kellogg & Co., South Elgin, Ill.). 29¢ to 35¢ for 2 oz. (7.3¢ to 8.8¢).

■ — PURE SOLUBLE COFFEE (Coffee Products Corp., NYC). 40¢ for 2 oz. (13.3¢).

■ — COPLEY Pure Instant Coffee (First National Stores, Inc., Somerville, Mass.). 62¢ for 4 oz. (8.9¢). Showed appreciable sediment after standing 30 min.

■ — FORBES Pure Instant Coffee (Jas. H. Forbes Tea and Coffee Co., St. Louis). 37¢ to 45¢ for 4 oz. (5.4¢ to 6.6¢).

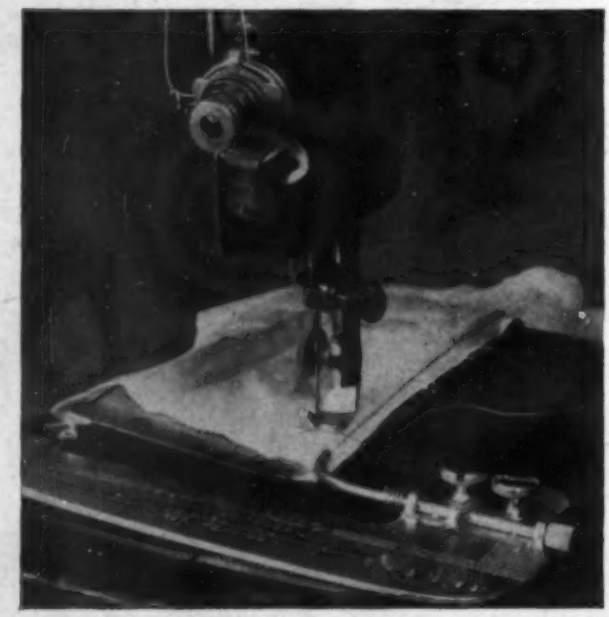
■ — BAILEY'S SUPREME Cup Ready Coffee (Southland Coffee Co., Atlanta). 39¢ for 2½ oz. (8.2¢).

■ — SOL CAFÉ (Great Star Soluble Coffee Co., NYC). 34¢ to 45¢ for 4 oz. (8.1¢ to 10.7¢). Contained dextrins, maltose and dextrose.

not acceptable

○ — EHLERS GRADE "A" Pure Soluble Coffee (Albert Ehlers, Inc., Brooklyn). 45¢ for 2½ oz. (10.6¢). Showed appreciable sediment after standing 30 min. Contained iron particles.

○ — KUP KAFAY (Inter-American Coffee Co., Yonkers, N. Y.). 21¢ to 35¢ for 4 oz. (3.9¢ to 6.5¢). Contained dextrins, maltose and dextrose. Contained iron particles.



Miracle Stitch Master

Step right up, ladies, and see the *Miracle*. This handy gadget will machine-hem your dresses — invisibly! All you do is attach the *Miracle Stitch Master* to your own machine, fold your fabric accordion-fashion in three layers, thus. The *Stitch Master* adjusts the folds so that your needle goes through the bottom layer of cloth and just nips the second folded edge, thus. Nothing can slip — with the special Magic Finger to guide you.

This $6.95 miracle, wrought by *Stitch Master* in Chicago, doesn't quite measure up to CU's idea of what a miracle ought to be. With care the *Stitch Master* can be made to work and with practice probably could be made to work more easily, but three experienced sewers report that it is anything but simple to operate.

Attaching the gadget is not difficult, but it's pretty time consuming. The regular presser foot of your sewing machine must be removed, and replaced with the *Stitch Master* foot. The *Stitch Master's* base plate, consisting of the Guide Plate, Magic Finger and Adjustment Pointer, must be screwed into the bed of your machine.

Suppose you have just finished pinning, basting and pressing. Now you are ready to put in a hem, one of the shortest operations in dressmaking. You are ready to use the *Stitch Master*, and your troubles are just beginning. The Adjustment Pointer requires frequent readjustment — a serious defect, because this is the part that determines just how much material is caught by a stitch. Catch too much, and you'll have a seam instead of a hem; too little, and you'll have no hem at all.

One tester found she had to hold the material very taut, and could not run her machine as fast as usual. All protested the added bother of changing needles, bobbins and spools, made necessary by the fact that the *Stitch Master* must be operated with a very fine needle and the finest thread possible for the material. A store demonstrator admitted that the *Stitch Master* did not perform well on light-weight materials.

The Frozen Foods Market

Out of a multitude of brands new and old, CU has tested vegetables or fruit — or both — of more than 80

Frozen foods are in the limelight of the food show — and everybody wants to get into the act. New brand names and new products are appearing daily, and there are hundreds of brands sold locally, regionally and nationally. You can now find almost anything from A (applesauce) to Z (zucchini).

CU's tests on four leading items in the frozen food field — peas, lima beans, strawberries and raspberries — show that this expanding business does not always carry with it the high quality which housewives are inclined to expect. For, while there was a far higher proportion of Grade A frozen peas and limas found in the current survey than there was in the course of tests made a year ago (see the *Reports*, July, 1946), the lower Grades B, C and D were still much in evidence. And the proportion of Grade A among frozen raspberries and strawberries was currently no better than that in last year's survey.

Birds Eye — pioneer in the frozen foods field — headed the list in terms of both quality and general availability. Not many brands were so well-controlled or well-distributed as *Birds Eye*, however. About a quarter of the 44 brands covered in last July's report were not found in the course of this year's shopping. To offset this, however, many new brands have appeared on the market, and CU's present report covers 84 brands, many of them available in at least several cities. Including all brands and varieties, the total number of frozen food samples covered in this project was 486 packages.

Unbranded fruits — presumably packed by small local concerns — were still in evidence. As can be seen in the table on page 204, these were generally inferior in quality to branded products.

The brand name picture is by no means simple. The same producer may pack the same item under a number of different private label brand names, for distribution in different parts of the country. For example, Seabrook, a producer which packs about 63% of the country's frozen lima beans, supplies *Birds Eye* and about half a dozen other private label brands besides putting out beans under its own label — *Seabrook Farms*. Cortley Frosted Foods, on the other hand, is a wholesale company which distributes under its own name packs acquired mainly through food brokers. Pratt's Fresh Frozen Foods is another distributor that buys from many packers.

Consumers as well as many reputable processors and distributors are calling for the establishment of minimum standards of production, packaging and labeling. These processors and distributors are fearful that sad experiences with low-grade products put out by fly-by-night companies may sour the consumer on frozen foods generally. The United States Department of Agriculture set up quality standards for some frozen foods as early as 1942, but these standards are not mandatory.

The quality of the frozen food — appearance, flavor and nutritional value of the food when served — depends on the quality of the fresh ingredients plus the care taken in every step of processing, packaging, storage and distribution until it reaches the table. Improper packaging and storage can ruin the best product. A package which is not moisture-proof will allow the product to dry out. Storage at temperatures above 0° F. will result in losses of vitamin C and may result in breakdown.

Some producers, including *Birds Eye*, make sure with more than adequate packaging; others — most often those who put no brand name on their product — seem to pack in whatever is available. *Birds Eye* strawberries packed in a heat-sealed, moisture-proof bag inside a waxed-paperboard carton with a waxed-paper overwrap were Grade A. An unbranded sample of strawberries which were packed simply in a circular cardboard container was Not Certified ("Not Certified" refers to products which could not be graded because of evidence of excessive rot or of dirt and foreign material) because of excessive rot. Though the poor packaging was not necessarily the cause of the rot, it was certainly no protection against its development. On the other hand, if the product is of poor quality or improperly processed to begin with, the best packaging will not improve it. *Rosemount* strawberries, packed in a heat-sealed cellophane bag inside a waxed-paperboard carton with a waxed-paper overwrap (similar to the *Birds Eye* package) were Not Certified, also because of evidence of excessive rot.

How CU rated

The ratings that follow are given in greater detail than usual in CU's reports on processed foods. This was done in an attempt to present a picture of the field. Though there can be no certainty in the matter, there would seem to be a reasonable probability that a brand which is consistently good with respect to the four products tested would be relatively good in other products.

A total of ten cities were surveyed and all available brands of peas, lima beans, strawberries and raspberries were purchased and rushed to graders in the United States Department of Agriculture in each city of purchase. The products were examined and graded by them immediately after receipt.

Ratings are based on the Department of Agriculture's tentative standards for the four frozen foods tested. These standards include such considerations as flavor, color, tenderness, maturity and absence of defects.

Ratings follow on the next page

√ As in 1946, *Birds Eye* was found to be of outstanding quality. *Cedergreen, Dewkist, Flav-R-Pac, Pratt's, Seabrook Farms* and *Sparklets* deserve honorable mention. Some others received high scores, but it was impossible to buy enough samples to draw conclusions about over-all quality. Only *Birds Eye* was available in all of the 10 cities in which CU's test purchases were made.

Frozen foods ratings

No brand has been rated "Not Acceptable," but quality variations within and between brands were wide enough to make some brands better buys than others. Listing is alphabetical.

acceptable

■ — AGEN (Cascade Frozen Foods, Inc., Seattle). Purchased in New York City.
Green Peas: 30¢ for 12 oz. Two packages tested; Grade A.
Strawberries: 69¢ for 16 oz. One package tested; Grade A.

■ — ALL STAR (M. W. Miller & Co., Sturgeon Bay, Wis.). Purchased in Chicago.
Strawberries: 69¢ for 16 oz. Two packages tested; Grade B.

■ — ARICO. Purchased in Boston. Packer unknown.
Lima Beans: 40¢ for 12 oz. Two packages tested; Grade A.

■ — BEHEN (Behen Fruit Service, Inc., Everett, Mass.). Purchased in Boston.
Strawberries: 69¢ for 14 oz. Two packages tested; Grade A.

■ — BELLE MEADE (Belle Meade Packing Corp., NYC). Purchased in Washington.
Strawberries: 69¢ for 12 oz. Three packages tested: 1 Grade B; 1 Grade D because of defects; 1 Not Certified: defects, off-flavor.

■ — BERRY (Marvin Berry Co., Bakersfield, Calif.). Purchased in NYC and Boston.
Lima Beans: 43¢ for 12 oz. Two packages tested; Grade B.
Strawberries: 69¢ for 16 oz. Four packages tested: 3 Grade A; 1 Grade B.

■ — BIRDS EYE (Birds Eye-Snider, Inc., NYC). Purchased in NYC, Phila., Boston, Washington, Chicago, Denver, Salt Lake City, Seattle, Los Angeles, San Francisco.
Green Peas: 25¢ to 34¢ for 12 oz. 20 packages tested: 18 Grade A; 2 Grade B.
Lima Beans: 39¢ to 44¢ for 12 oz. 13 packages tested: 10 Grade A; 1 Grade B; 2, C.
Strawberries: 59¢ to 77¢ for 16 oz. 13 packages tested; Grade A.

■ — BLOOM (M. Bloom & Co., Camden, N. J.). Purchased in Philadelphia.
Green Peas: 29¢ for 12 oz. Two packages tested; Grade B.
Strawberries: 49¢ for 12 oz. Two packages tested: 1 Grade B; 1 Not Certified: rot.
Red Raspberries: 45¢ for 12 oz. Two packages tested: 1 Grade A; 1 Not Certified, rot.
Black Raspberries: 45¢ for 12 oz. Two packages tested; Grade B.

■ — BODLE (R. D. Bodle Co., Seattle). Purchased in New York City, Philadelphia, Boston, Washington, D. C., Los Angeles.
Green Peas: 30¢ for 12 oz. Four packages tested: 2 Grade A; 2 Grade B.
Strawberries: 62¢ to 75¢ for 16 oz. Four packages tested: 3 Grade A; 1 Grade D (defects).
Raspberries: 74¢ for 16 oz. Two packages tested; Grade A.

■ — BOOTH (Booth Fisheries Corp., Chicago). Purchased in Chicago, Denver, Salt Lake City.
Green Peas: 25¢ to 30¢ for 12 oz. Four packages tested: 1 Grade A; 3 Grade B.
Strawberries: 75¢ for 16 oz. Four packages tested; Grade A.
Raspberries: 59¢ to 79¢ for 16 oz. Four packages tested: 2 Grade A; 2 Grade D (defects).

■ — BROWN's (Brown's Frosted Foods, Inc., Philadelphia). Purchased in Philadelphia.
Green Peas: 29¢ for 12 oz. Two packages tested; Grade B.
Strawberries: 49¢ and 67¢ for 16 oz. Two packages tested: 1 Grade B; 1 Not Certified because of excessive rot.

■ — CALIFORNIA GREEN TIDE (Calif. Consumers Corp., Los Angeles). Purchased in Denver and San Francisco.
Lima Beans: 35¢ to 42¢ for 12 oz. Four packages tested: 1 Grade A; 2, B; 1, C.

■ — CALIFORNIA PRIME FROZ-N (Calif. Consumers Corp.). Purchased in Philadelphia, Boston, Los Angeles, San Francisco.
Lima Beans: 32¢ to 45¢ for 12 oz. Eight packages tested: 2 Grade A; 5, B; 1, C.

■ — CALIFORNIA SPRAY KIST (Calif. Consumers Corp.). Purchased in Chicago.
Lima Beans: 27¢ for 12 oz. Two packages tested; Grade C.

■ — CARPEL's (Carpel Frosted Foods, Inc., Washington, D. C.). Purchased in D. C.
Green Peas: 32¢ for 12 oz. Two packages tested; Grade A.
Lima Beans: 38¢ for 12 oz. Two packages tested; Grade A.
Raspberries: 69¢ for 16 oz. Two packages tested; Grade A.

■ — CEDERGREEN (Cedergreen Frozen Pack Corp., Wenatchee, Wash.). Purchased in Chicago, Seattle, Los Angeles.
Green Peas: 27¢ to 33¢ for 12 oz. Four packages tested: 3 Grade A; 1 Grade B.
Strawberries: 63¢ to 78¢ for 16 oz. Four packages tested; Grade A.
Raspberries: 63¢ to 69¢ for 16 oz. Three packages tested; Grade A.

■ — CHICKAMAUGA PRODUCERS INC. (Chickamauga Producers Inc., Dayton, Tenn.). Purchased in New York City.
Strawberries: 69¢ for 16 oz. One package tested; Grade D because of defects.

■ — COLDSEAL (Q-F Wholesalers Inc., NYC). Purchased in NYC and Phila.
Green Peas: 29¢ for 12 oz. Four packages tested: 1 Grade A; 2 Grade B; 1 Grade C.
Lima Beans: 35¢ to 40¢ for 12 oz. Four packages tested: 1 Grade A; 2 Grade B; 1, C.
Strawberries: 63¢ for 16 oz. One package tested; Grade Not Certified, rot.

■ — CORTLEY (Cortley Frosted Foods, NYC). Purchased in NYC and Phila.
Green Peas: 32¢ for 12 oz. Two packages tested: 1 Grade A; 1 Grade B.
Lima Beans: 36¢ to 45¢ for 12 oz. Six packages tested: 4 Grade B; 2 Grade C.
Strawberries: 64¢ to 69¢ for 16 oz. Four packages tested: 3 Grade A; 1 Grade B.
Raspberries: 73¢ and 79¢ for 16 oz. Two packages tested: 1 Grade A; 1 Grade B.

■ — DEWKIST (Washington Packers Inc., Sumner, Wash.). Purchased in New York City, Philadelphia, Chicago.
Green Peas: 23¢ to 30¢ for 12 oz. Four packages tested: 3 Grade A; 1 Grade B.
Strawberries: 59¢ for 16 oz. Two packages tested: 1 Grade A; 1 Grade B.
Raspberries: 59¢ to 75¢ for 16 oz. Four packages tested; Grade B.

■ — DRISCOLL (E. F. Driscoll, Seattle). Purchased in Seattle.
Strawberries: 61¢ for 16 oz. Two packages tested; Grade A.

Grades of Foods Tested

Branded Samples

Green Peas: 128 packages tested.

54% Grade A	5% Grade C
40% Grade B	½% Grade D
½% Not Certified	

Lima Beans: 120 packages tested.

41% Grade A	24% Grade C
31% Grade B	4% Grade D

Strawberries: 136 packages tested.

59% Grade A	10% Grade D
22% Grade B	9% Not Certified

Raspberries: 92 packages tested.

54% Grade A	8% Grade D
37% Grade B	1% Not Certified

Unbranded samples

10 packages tested.
Strawberries: 9 samples; *Raspberries:* 1 sample.

10% Grade A	10% Grade D
50% Grade B	30% Not Certified

■ — DULANY (John H. Dulany & Son, Fruitland, Md.). Purchased in New York City, Philadelphia, Washington, D. C.
Green Peas: 30¢ for 12 oz. Four packages tested: 1 Grade A; 3 Grade B.
Lima Beans: 38¢ for 12 oz. One package tested; Grade A.
Strawberries: 67¢ to 71¢ for 16 oz. Three packages tested: 2 Grade A; 1 Not Certified because of excessive rot.

■ — DU SON (John H. Dulany & Son). Purchased in New York City.
Lima Beans: 44¢ for 12 oz. One package tested; Grade D because of defects.

■ — E. B. FROSTED FOODS (E. B. Frosted Foods, NYC). Purchased in New York City.
Strawberries: 39¢ for 8 oz. Two packages tested: 1 Grade B; 1 Grade D because of the character of the fruit.

■ — EDDIE BOY (Eddie Boy Brand, NYC). Purchased in New York City.
Strawberries: 69¢ for 8 oz. One package tested; Grade B.

■ — EVANS ECCO (Ecco Frozen Foods Co., Longview, Wash.). Purchased in Seattle.
Strawberries: 65¢ for 16 oz. Two packages tested; Grade A.

■ — FAIRMONT'S (Fairmont Creamery Co., Omaha). Purchased in NYC and Phila.
Green Peas: 29¢ for 12 oz. Three packages tested: 1 Grade A; 2 Grade B.
Lima Beans: 38¢ to 45¢ for 12 oz. Five packages tested; 2 Grade A; 1 Grade B; 2, C.
Strawberries: 57¢ to 71¢ for 16 oz. Four packages tested: 2 Grade A; 2 Grade B.
Raspberries: 66¢ for 16 oz. Four packages tested: 2 Grade B; 2 Grade D because of the character of the fruit (approx. 50% mushy).

■ — FARMERS CO-OP (Farmers Cooperative Union, Inc., Puyallup, Wash.). Purchased in Washington, D. C., Seattle, San Francisco.
Raspberries: 65¢ to 75¢ for 16 oz. Six packages tested: 3 Grade A; 3 Grade B.

■ — FARM-FRESH (Snider Farms, Gresham, Ore.). Purchased in Chicago.
Raspberries: 59¢ for 16 oz. Two packages tested; Grade B.

■ — FENTON BRAND (M. Bloom & Co., Camden, N. J.). Purchased in Philadelphia.
Lima Beans: 38¢ to 42¢ for 12 oz. Two packages tested: 1 Grade B; 1 Grade C.

■ — FENWICK (Deerfield Packing Corp., Seabrook Farms, Bridgeton, N. J.). Purchased in New York City and Philadelphia.
Green Peas: 28¢ for 12 oz. Two packages tested: 1 Grade A; 1 Grade C.
Lima Beans: 33¢ to 41¢ for 12 oz. Five packages tested: 4 Grade A; 1 Grade B.

■ — FLAV-R-PAC (North Pacific Canners & Packers, Inc., Portland, Ore.). Purchased in New York City, Denver, Salt Lake City.
Strawberries: 76¢ for 16 oz. One package tested; Grade A.
Raspberries: 69¢ to 79¢ for 16 oz. Six packages tested; Grade A.

■ — FRIO (Frio Frozen Foods, Inc., NYC). Purchased in New York City.
Lima Beans: 40¢ for 12 oz. Two packages tested: 1 Grade B; 1 Grade C.

■ — FROSTKIST (Washington Packers, Inc., Sumner, Wash.). Purchased in NYC.
Green Peas: 23¢ for 12 oz. Two packages tested; Grade A.

■ — FROST QUEEN (Kelley, Farquhar & Co., Tacoma, Wash.). Purchased in Boston.
Green Peas: 23¢ for 12 oz. One package tested; Grade B.

■ — FROZEN FOOD CO. (Frozen Food Co., Seattle). Purchased in Chicago.
Raspberries: 79¢ and 82¢ for 16 oz. Two packages tested: 1 Grade A; 1 Grade B.

■ — FROZRITE (Braddock Frosted Foods, Braddock, N. J.). Purchased in NYC.
Raspberries: 69¢ for 16 oz. Two packages tested: 1 Grade A; 1 Grade B.

■ — GEE BEE (Gaudio Bros., Camden, N. J.). Purchased in NYC and Phila.
Lima Beans: 47¢ for 12 oz. Two packages tested: 1 Grade B; 1 Grade C.
Raspberries: 74¢ for 16 oz. Three packages tested: 2 Grade A; 1 Grade B.

■ — GENERAL FROST (General Froster Co., Plainfield, N. J.). Purchased in NYC.
Strawberries: 79¢ for 16 oz. Two packages tested: 1 Grade A; 1 Grade B.

■ — GREEN VALLEY (Penn Fruit Co., Phila.). Purchased in Philadelphia.
Green Peas: 26¢ for 12 oz. Two packages tested; Grade B.

■ — GRESHAM (Gresham Berry Growers, Gresham, Ore.). Purchased in Salt Lake City.
Strawberries: 67¢ and 74¢ for 16 oz. Two packages tested; Grade A.

■ — GRO-PAK (Growers and Packers Co-op Canning Co., North Collins, N. Y.). Purchased in New York City.
Raspberries: 53¢ for 16 oz. Two packages tested: 1 Grade B; 1 Grade D because of character of fruit (approx. 75% mushy).

■ — HAPPY ISLES (Yosemite Growers Co-op Association, Merced, Calif.). Purchased in New York City and Philadelphia.
Lima Beans: 39¢ for 12 oz. Three packages tested; Grade C.

■ — HONOR BRAND (Honor Brand Frosted Foods Div., Stokely-Van Camp, Inc., Oakland, Calif.). Purchased in New York City, Philadelphia, Los Angeles, San Francisco.
Green Peas: 29¢ for 12 oz. Seven packages tested: 3 Grade A; 4 Grade B.
Lima Beans: 35¢ to 41¢ for 12 oz. Three packages tested: 2 Grade B; 1 Grade C.
Strawberries: 65¢ to 75¢ for 16 oz. Three packages tested: 1 Grade A; 2 Grade B.
Raspberries: 69¢ for 12 oz. Two packages tested; Grade B.

■ — HOSIER (Hosier & Co., Birmingham, Ala.). Purchased in New York City.
Strawberries: 45¢ and 65¢ for 12 oz. Two packages tested; Grade D because of defects.

■ — HYGRADE'S (Hygrade Food Products Corp., NYC). Purchased in New York City.
Green Peas: 31¢ and 36¢ for 12 oz. Two packages tested: 1 Grade A; 1 Grade C.

■ — J I BRAND (JI Fancy Frozen Food Co., Stockton, Calif.). Purchased in New York City and Boston.
Lima Beans: 37¢ to 40¢ for 12 oz. Four packages tested: 3 Grade A; 1 Grade B.

■ — KALE'S (C. S. Kale Canning Co., Everson, Wash.). Purchased in Philadelphia and Chicago.
Raspberries: 59¢ to 71¢ for 16 oz. Four packages tested: 1 Grade A; 3 Grade B.

■ — LITTLE AMERICA (Little America Finer Frosted Foods Co., Pittsburgh). Purchased in Philadelphia and Boston.
Black Raspberries: 59¢ for 16 oz. Two packages tested; Grade A.
Red Raspberries: 69¢ for 16 oz. Two packages tested; Grade A.

■ — MELLHORN (Intermountain Food Co., Provo, Utah). Purchased in Salt Lake City.
Strawberries: 74¢ for 16 oz. Two packages tested; Grade A.

■ — MOON WINKS (Midfield Packers, Olympia, Wash.). Purchased in New York City and Philadelphia.
Strawberries: 64¢ and 69¢ for 16 oz. Two packages tested: 1 Grade A; 1 Grade B.
Raspberries: 69¢ for 16 oz. Two packages tested: 1 Grade A; 1 Grade B.

■ — PACIFIC (Churchill Frozen Foods Inc., Stockton, Calif., distributed by Kelley Clarke Co.). Purchased in NYC.
Green Peas: 31¢ for 12 oz. Two packages tested; Grade B.

■ — PEMBROKE (East Pembroke Canning Corp., East Pembroke, N. Y.). Purchased in Philadelphia.
Green Peas: 69¢ for 2½ lbs. Two packages tested; Grade B.

■ — PICTSWEET (PictSweet Foods, Inc., Mt. Vernon, Wash.). Purchased in Seattle, Los Angeles, San Francisco.
Green Peas: 28¢ to 31¢ for 12 oz. Six packages tested: 2 Grade A; 4 Grade B.
Lima Beans: 37¢ for 12 oz. Five packages tested: 3 Grade A; 2 Grade B.
Strawberries: 73¢ for 16 oz. One package tested; Grade D (soft, mushy fruit).

■ — POLAR (S. A. Moffett Co., Seattle, Wash.). Purchased in NYC, Phila., Chicago, Seattle, Los Angeles, San Francisco.

Ratings continued on next page

√ While vegetable quality increased, price did not. The range of 22¢–36¢ for 12 ounces of peas, and 27¢–47¢ for 12 ounces of lima beans was about the same in 1942. But strawberries and raspberries went up in price and not in quality. Prices varied between cities and stores, fruit was packaged in a variety of sizes, and sometimes 12 ounces cost as much or more than 16 ounces.

Green Peas: 24¢ to 29¢ for 12 oz. Seven packages tested: 3 Grade A; 2 Grade B; 1 Grade C; 1 Grade D because of defects.
Lima Beans: 29¢ to 35¢ for 12 oz. Four packages tested: 3 Grade C; 1 Grade D (defects).
Strawberries: 59¢ to 70¢ for 16 oz. Ten packages tested: 7 Grade A; 2 Grade B; 1 Grade D because of defects.
Raspberries: 59¢ to 73¢ for 16 oz. Eight packages tested: 6 Grade A; 1 Grade B; 1 Grade D because of defects.

■ — PRATT'S (Pratt's Fresh Frozen Foods, Inc., NYC). Purchased in New York City, Boston, Washington, D. C., Chicago.
Green Peas: 28¢ to 31¢ for 12 oz. Three packages tested: 2 Grade A; 1 Grade B.
Lima Beans: 35¢ to 43¢ for 12 oz. Eight packages tested: 7 Grade A; 1 Grade B.
Strawberries: 59¢ to 69¢ for 16 oz. Seven packages tested: 6 Grade A; 1 Grade B.
Raspberries: 69¢ to 76¢ for 16 oz. Three packages tested: 2 Grade B; 1 Grade D (approx. 50% mushy).

■ — PRIME CANNING CO. (Prime Canning Co., North Collins, N. Y.). Purchased in NYC.
Strawberries: 59¢ for 12 oz. Two packages tested: 1 Grade A; 1 Not Certified because of excessive rot.

■ — PRINGLE (R. D. Pringle & Co., Modesto, Calif.). Purchased in Philadelphia, Chicago, Salt Lake City.
Green Peas: 25¢ to 31¢ for 12 oz. Three packages tested: 1 Grade A; 2 Grade B.
Lima Beans: 40¢ for 12 oz. Two packages tested; Grade C.
Raspberries: 77¢ for 16 oz. Two packages tested: 1 Grade A; 1 Grade B.

■ — ROSEMOUNT (Saler's Dairy Store, Phila.). Purchased in Philadelphia.
Green Peas: 29¢ for 12 oz. Two packages tested; Grade B.
Lima Beans: 35¢ to 44¢ for 12 oz. Four packages tested: 1 Grade A; 1 Grade B; 1 Grade C; 1 Grade D because of defects.
Strawberries: 69¢ for 16 oz. Two packages tested; Not Certified because of rot.

■ — SEABROOK FARMS (Deerfield Packing Corp., Seabrook Farms, Bridgeton, N. J.). Purchased in New York City, Philadelphia, Boston, Washington, D. C., Chicago.
Green Peas: 30¢ for 12 oz. Four packages tested: 2 Grade A; 2 Grade B.
Lima Beans: 34¢ to 45¢ for 12 oz. Eleven packages tested; 8 Grade A; 1 Grade B; 2 Grade C.

■ — SHERWOOD (Portland Canning Co., Sherwood, Ore.). Purchased in Philadelphia.
Strawberries: 65¢ for 16 oz. Two packages tested; Grade B.

■ — SKI-GIRL (United Growers, Inc., Salem, Ore.). Purchased in New York City.
Strawberries: 69¢ for 16 oz. Two packages tested: 1 Grade B; 1 Grade D (defects).

■ — SKRMETTA PACKING CO. (Skrmetta Packing Co., New Orleans). Purchased in Philadelphia.
Strawberries: 66¢ for 12½ oz. Two packages tested; Not Certified because of rot.

■ — SKYLAND (Donald L. Reed Co., Denver). Purchased in Denver.
Strawberries: 65¢ and 69¢ for 16 oz. Two packages tested; Grade D because of defects.

■ — SMITH BRAND (Smith Frozen Foods, Clearfield, Utah). Purchased in Salt Lake City.
Green Peas: 28¢ for 12 oz. One package tested; Grade B.

■ — SNOBOY (Pacific Fruit & Produce Co., Seattle). Purchased in Seattle.
Raspberries: 63¢ for 16 oz. One package tested; Grade B.

■ — SNOWBIRD (Community Frosted Food Co., Phila.). Purchased in Philadelphia.
Lima Beans: 44¢ for 12 oz. One package tested; Grade B.
Strawberries: 70¢ for 16 oz. Two packages tested; Grade B.
Raspberries: 56¢ for 10 oz. Three packages tested: 2 Grade A; 1 Grade B.

■ — SNOW CROP (Snow Crop Marketers, Inc., NYC). Purchased in New York City, Philadelphia, Boston, Washington, D. C.
Green Peas: 28¢ to 32¢ for 12 oz. Eight packages tested: 4 Grade A; 3 Grade B; 1 Grade C.

■ — SNOW GIRL (John Inglis Frozen Foods, Stockton, Calif.). Purchased in Seattle.
Lima Beans: 38¢ for 12 oz. Two packages tested; Grade B.

■ — SOUND FRUIT GROWERS ASS'N (Sound Fruit Growers Ass'n, Sumner, Wash.). Purchased in Seattle.
Strawberries: 65¢ for 16 oz. Two packages tested; Grade B.
Raspberries: 65¢ for 16 oz. One package tested; Grade A.

■ — SOUTHLAND (Southland Products Co., NYC). Purchased in NYC and Boston.
Strawberries: 69¢ for 12 oz. Two packages tested; Grade A.
Raspberries: 69¢ for 16 oz. Two packages tested; Grade B.

■ — SPARKLETS (Kelley, Farquhar & Co.). Purchased in New York City, Philadelphia, Denver, Los Angeles.
Green Peas: 33¢ for 12 oz. Three packages tested; Grade A.
Strawberries: 69¢ to 79¢ for 16 oz. Five packages tested: 4 Grade A; 1 Grade B.
Raspberries: 66¢ to 79¢ for 16 oz. Five packages tested; Grade A.

■ — SPIEGL FARMS BRAND (Spiegl Foods Co., Salinas, Calif.). Purchased in Chicago.
Lima Beans: 29¢ for 12 oz. One package tested; Grade A.

■ — STARR (Starr Fruit Products Co., Portland, Ore.). Purchased in New York City and Boston.
Strawberries: 59¢ to 63¢ for 16 oz. Four packages tested; Grade A.

■ — STERLING (Sacramento Frosted Foods Co., Sacramento, Calif.). Purchased in Washington, D. C.
Green Peas: 32¢ for 12 oz. One package tested; Grade C.

■ — STERLING POINT (Sterling Point Frosted Foods Co., NYC). Purchased in NYC.
Green Peas: 30¢ for 12 oz. Two packages tested; Grade A.
Lima Beans: 39¢ and 43¢ for 12 oz. Two packages tested: 1 Grade B; 1 Grade C.
Strawberries: 69¢ and 75¢ for 16 oz. Two packages tested; Not Certified because of excessive rot.
Raspberries: 69¢ and 79¢ for 16 oz. Two packages tested; Grade B.

■ — TAXIN'S (Taxin's Frosted Food Co., Phila.). Purchased in Philadelphia.
Green Peas: 29¢ for 12 oz. Two packages tested: 1 Grade A; 1 Not Certified because of presence of foreign material (buds, pod and pod seeds, dirt).
Lima Beans: 39¢ to 42¢ for 12 oz. Four packages tested: 1 Grade A; 1 Grade B; 1 Grade C; 1 Grade D because of defects.
Strawberries: 49¢ and 59¢ for 12 oz. Two packages tested: 1 Grade D because of defects; 1 Not Certified because of rot.
Black Raspberries: 65¢ for 16 oz. Two packages tested; Grade A.

■ — TOP FROST (Top Frost Foods, Inc., Phila.). Purchased in NYC, Phila., Boston.
Green Peas: 28¢ for 12 oz. Three packages tested: 1 Grade A; 2 Grade B.
Lima Beans: 34¢ for 12 oz. Four packages tested: 2 Grade B; 1 Grade C; 1 Grade D because of defects.
Strawberries: 49¢ to 59¢ for 15 oz. Five packages tested: 3 Grade A; 2 Grade D because of defects.

■ — TOTEM (R. D. Bodle Co.). Purchased in Seattle.
Green Peas: 22¢ for 12 oz. One package tested; Grade A.

■ — TRU FROZ-N (Calif. Consumers Corp.). Purchased in Los Angeles.
Lima Beans: 36¢ for 12 oz. One package tested; Grade B.

■ — VALAMONT (National Fruit Canning Co., Seattle). Purchased in NYC, Phila.
Green Peas: 29¢ for 12 oz. One package tested; Grade A.
Strawberries: 69¢ for 16 oz. One package tested; Grade A.

■ — WINTER GARDEN (Winter-Garden Co., Knoxville, Tenn.). Purchased in New York City and Philadelphia.
Strawberries: 64¢ for 16 oz. Four packages tested: 1 Grade A; 3 Grade B.

■ — WINTER QUEEN (Fresh Frozen Foods Ltd., Watsonville, Calif.). Purchased in NYC.
Green Peas: 29¢ for 12 oz. Two packages tested; Grade A.

■ — YUKON (Braddock Frosted Foods Inc.). Purchased in New York City and Philadelphia.
Strawberries: 69¢ for 16 oz. Two packages tested; Grade A.
Raspberries: 69¢ for 16 oz. Two packages tested; Grade A.

UNBRANDED SAMPLES.
Strawberries: 34¢ to 39¢ for 8 oz.; 63¢ for 16 oz. Nine packages tested: 1 Grade A; 5 Grade B; 1 Grade D because of defects; 2 Not Certified — one because of excessive rot; one because of off-odor and off-flavor.
Raspberries: 59¢ for 16 oz. One package tested; Not Certified because of excessive rot and defects.

Photos by U. S. Dept. of Agriculture

Mosquitoes won't bite through repellent-treated clothes, but one washing removes effect

The War on Insects

New repellents and insecticides are ready for home use

Last month CU summed up some recent advances in insecticides and fungicides for garden use. Herewith a summary of new data on repellents (which keep insects at a distance) and insecticides (which kill them), especially for use in the home, where war against the cockroach and the silverfish has been going on for years.

Although a number of insecticides were available before the war, a great many new ones emerged during the war years as a result of research carried on by the U. S. Bureau of Entomology and Plant Quarantine under the direction of Dr. F. C. Bishopp. Over 8000 materials have been tested for insecticidal qualities and about 7000 more as repellents at the Bureau's Orlando, Florida, Laboratory alone, where the work continues under the direction of E. F. Knipling and H. H. Stage.

Over-enthusiastic advertising has built *DDT* up to the point where many consumers look upon it as a one-shot insecticide. Actually no insecticide or repellent is effective against all pests, even all the common ones. There are more than 50,000 injurious insects, all with different habits, and a variety of chemicals are needed to combat them.

Here are some of the best of the new discoveries:

Repellents

During the war three excellent repellents were issued to troops for protection against biting insects: *Dimethyl Phthalate*, *Rutgers 612*, and *Indalone*. While each of these is particularly potent against certain insects, a mixture of the three, known as *6-2-2* (60% *Dimethyl Phthalate*, 20% *Rutgers 612*, 20% *Indalone*), is more effective on more people against more insects than any other single repellent.

6-2-2 will scare off mosquitoes, flies, chiggers, and biting gnats. When sold under trade names, the active ingredients are sometimes diluted. This may make the repellent a bit more pleasing as a cosmetic, but it reduces the period of protection.

Apply repellents by shaking a few drops on the palms, smearing evenly, then rubbing on exposed skin until a uniform oily film has been applied. When the insects start biting again, rub on some more.

In localities where mosquitoes are particularly vicious, spraying or daubing your garments will keep the mosquitoes from biting through clothes. Such a treatment lasts several days, but one soaking in water makes a treated garment noneffective.

The repellents used in *6-2-2* kill chiggers instead of merely keeping them away. If you are using *6-2-2* for chiggers or mites, apply it to the clothing, but not to the skin. Be sure to rub it on well at the spots where chiggers could get inside clothes — especially the neck band, plackets, fly, cuffs, inside the waist band, on socks above the shoes, on the outside of shoes near laces, etc. Government toxicologists have found *6-2-2* and its separate ingredients safe for use on the skin. But these chemicals are toxic if taken internally. There are other repellents which, while efficient repellers, are not recommended because of their irritating qualities.

Occasionally some people find they are allergic to chemicals which have passed toxicological tests. And any of the safe repellents may cause some smarting if applied to mucous membranes or to spots where the skin is especially tender. Like soap, repellents will cause temporary stinging if used too freely around the eyes.

Repellents will not damage cotton or wool cloth containing no synthetic fibers, but will dissolve paints, varnishes, and some plastics. Look out for plastic watch crystals, synthetic rayons, fingernail polish, etc.

Insecticides

Clordane (1068): So far as cockroaches are concerned, this is the answer to the housewife's prayer. Exterminators are using it widely, too.

3956: Like *DDT*, (see *Reports*, Sept. 1945, Oct. 1945, June 1946), *3956* has a slow knock-down-and-kill, and a spray residue that persists. It has been excellent when used against body lice, and is effective for cockroaches, bedbugs and carpet beetles.

MYL: This is a pyrethrum mixture, developed by the Government, and issued during the African campaign to kill body lice. *DDT* was later found to be superior for louse control, but *MYL* continues to be excellent for fleas, in which case a 19% *MYL* powder is applied to the skin and clothing. While the *MYL* formula is not

yet generally available, pyrethrum is, and makes, a fairly good substitute.

Benzyl Benzoate: When applied to clothing, *Benzyl Benzoate* has been pretty effective against chiggers, but after two or three launderings its killing effect disappears. It was used successfully in Great Britain to control scabies, and in the United States to control both scabies and lice. It will probably supersede sulfur ointment as a treatment for scabies in man. *Benzyl Benzoate* is also useful for controlling scabies on pets and domestic animals.

The Food and Drug Administration requires manufacturers to secure a license from the Administration. Labels must bear complete instructions for use, and give safety precautions.

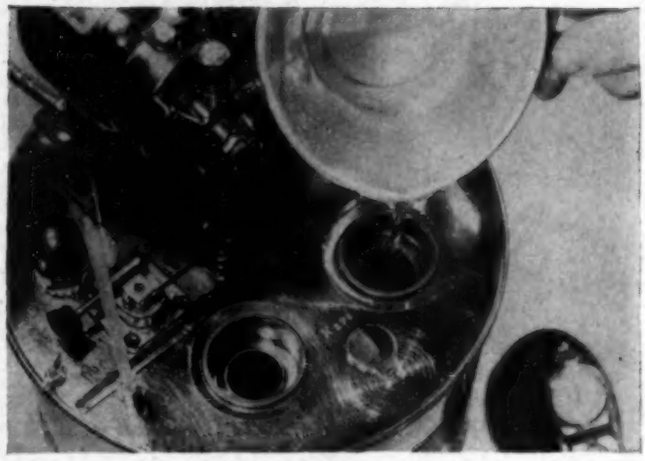
NBIN: The Food and Drug Administration has cleared *NBIN* for use against head lice, scabies and crab lice, but manufacturers must obtain a license, and labels must bear complete approved instructions and precautions. This is not available under a brand name yet, but will be on the market soon. It consists of 68% benzyl benzoate, 14% *Tween 80;* 12% benzocaine; and 6% *DDT*. Follow the directions closely: it is a liquid and must be diluted with 5 parts water.

Benzene Hexachloride or *666:* In England, where it was developed, this material is known as *666* or *Gammexane*. It was the most effective compound tested against chiggers at the Orlando Laboratory: a spray or dust applied to fields gives a high kill. Its persistent, musty odor limits its use in homes, and wherever food is handled. *666* is slightly more toxic than *DDT*, and may cause skin irritation; users are cautioned to avoid contact with the skin and to avoid inhalations. It is not generally available, but is being used on a large scale by farmers (*Reports*, May).

Where to buy them

Some of the insecticides and repellents covered above are not yet on the market, but will begin to be available as manufacture is stepped up. The Food & Drug Administration will require that labels carry warnings and directions. These products can be purchased now:

• 6-2-2: *Manufactured by J. B. Williams Co., Glastonbury, Conn. as* Skat; *and by Carbide and Carbon Chemicals Corp., NYC.* • Rutgers 612: *Manufactured as* Everready *and* 6-1-2 *by National Carbide Corp., NYC.* • Clordane (*1068*): *Manufactured as* 1068 *by Velsicol Co., Chicago; and as* Octa-Klor *by Julius Hyman & Co., Denver.* • 3956: *Manufactured as* Toxaphene *by Hercules Powder Co., Wilmington.* • Pyrethrum: *Manufactured by McCormick Co., Baltimore; McLaughlin Gormley King Co., Minneapolis; John Powell Co., NYC.*



In the CU laboratory 49 brands of motor oil were tested for viscosity. This viscosimeter measured the oil's . . .

Summer Motor Oils

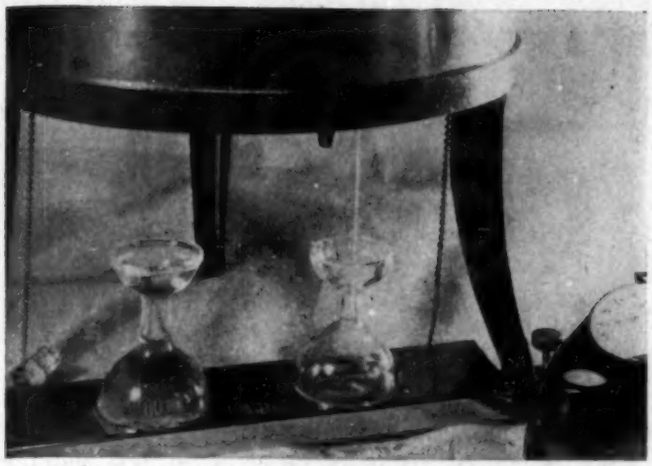
All 40 brands purchased in sealed containers met SAE-30 specifications

CU's last motor oil report (June, 1945) rated oils under criteria based on then current Federal Specifications. These covered tests for viscosity, viscosity index, flash point, fire point, neutralization number, and carbon residue. Recently, work by oil manufacturers and buyers has indicated that of these laboratory tests, only those for viscosity and viscosity index can be interpreted as bearing on the quality of an oil as actually used in an automobile engine.

Viscosity is the measurement, under standard conditions, of an oil's thickness or "heaviness." The viscosity index is a measure of the change in viscosity with change in temperature. Other factors being equal, the less the viscosity of an oil changes as its temperature rises or falls, the better the oil. Relatively little change over a temperature range gives a relatively high viscosity index; the higher the index, the better the oil.

Many tests have been proposed and used for evaluating other oil performance characteristics. Producers often depend on "engine tests," laboratory-simulated accelerated breakdown tests and physical property tests. Large consumers like trucking companies sometimes resort to fleet tests. But their results are limited to a group of trucks, and to special driving conditions.

In the absence of a recognized acceptable method for rating performance, CU subjected 49 brands of SAE-30 motor oil — the grade generally recommended for summer use — to the standard viscosity tests (at 100°F. and 210°F.), and from the resulting data got the answers to two questions on oil suitability: (1) Did the oil conform to SAE viscosity requirements? (Society of Automotive



. . . thickness at 100°F. and 210°F., according to standard procedures of the American Society for Testing Materials

Engineers requirements are standard in the petroleum industry.) (2) Did the oil have a high viscosity index?

Forty of the tested brands came in sealed containers, 9 in bulk. All were ordered as SAE-30, the 30 being a viscosity designation; the higher this number, the thicker the oil. All oils in sealed containers met SAE requirements for No. 30. But 6 of those purchased in bulk failed to do so. Duplicate bulk samples purchased from the same service stations differed widely. The moral: Buy oil in sealed containers wherever possible.

Oil is less expensive when purchased in 5-quart or 2- or 5-gallon containers. But prices for both bulk and container have risen since 1945: 17 out of 28 brands examined in that year and again for this test showed an average price rise of 5¢ per quart.

Because some engine power has to go into overcoming the flow resistance of the oil, fuel consumption will be less with thinner motor oil. SAE-20 may therefore be satisfactory under average operating conditions, when a car is in good condition and temperatures do not run high. But for older cars, a thin oil may mean high oil consumption, and SAE-30 is a safer bet.

All oils leave a gummy residue and corrosive acids — the products of breakdown or oxidation. The extent to which an oil oxidizes depends on temperature, pressure, and other operating conditions. Recently oils have been marketed containing "additives," substances which are claimed to increase stability, clean out crankcase carbon deposits, or hold them in suspension, and emulsify sludge. These oils gave good war service in trucks, tanks and heavy-duty engines. But there's been no experience to prove that a plain passenger car would fare better on an oil with additives than on a good standard motor oil.

A wait-and-see approach is recommended also for *Prestone*, Union Carbide Company's new non-petroleum synthetic oil. The two grades tested, No. 200 and No. 300, met SAE-10 and 20 standards, respectively, and had high viscosity indexes; where SAE-30 is recommended for summer use, the No. 300 oil could be used all year round; where SAE-20 is recommended, the No. 200 oil would be suitable. But cost is high (75¢ per quart), and distribution limited.

Motor oil ratings

acceptable

In decreasing order of viscosity index; adjacent ratings represent small differences only. Price given is for 1 qt. can, except where noted otherwise. All brands listed met SAE-30 specifications.

■ — ESSO NO. 3 (Standard Oil Co.; distributors, Colonial Beacon Oil Co.). 35¢ and 40¢. Labeled SAE-20, 20W, and 30. Meets SAE-30 and 20W specifications.

■ — QUAKER STATE (Quaker State Oil Refining Corp.). 35¢.

■ — GULFPRIDE (Gulf Oil Corp.). 35¢.

■ — WOLF'S HEAD (Wolf's Head Oil Refining Co.). 28¢.

■ — SINCLAIR PENNSYLVANIA (Sinclair Refining Co.). 35¢ and 40¢.

■ — CONOCO *NTH* (Continental Oil Co.). 35¢.

■ — MOBILOIL (Socony-Vacuum Oil Co.). 30¢ and 35¢.

■ — TRAVELENE (Straus Stores Corp.). $2.29 per 2-gal. can (cost per qt., 28¢).

■ — KENDALL (Kendall Refining Co.). 33¢ and 35¢.

■ — CITIES SERVICE KOOLMOTOR (Cities Service Oils). 35¢.

■ — RICHLUBE (Richfield Oil Corp.). 35¢.

■ — VEEDOL (Tide Water Associated Oil Co.). 35¢. Packaged in fiber container.

■ — PENNZOIL (Pennzoil Co.). 28¢ and 35¢.

■ — TIOLENE (Pure Oil Co.). 35¢.

■ — AMOCO PERMALUBE (American Oil Co.). 35¢ and 40¢.

■ — ATLANTIC AVIATION (Atlantic Oil Refining Co.). 35¢.

■ — CO-OP RED LABEL. $4.25 per 5-gal. can (cost per qt., 21¢).

■ — ATLANTIC QUALITY A (Atlantic Refining Co.). 30¢

■ — FIRESTONE SUPREME $1.98 per 2-gal. can (cost per qt., 25¢).

■ — SHELL X-100 (Shell Oil Co.). 35¢. Different samples of the same brand showed slight variation in viscosity index.

■ — TRITON 76 (Union Oil Co. of Calif.). 40¢.

■ — VITA POWER (Western Auto Supply Co.). 26¢.

■ — STANDARD PERMALUBE (Standard Oil Co.). $1.60 per 5-qt. can (cost per qt., 32¢).

■ — ISO-VIS (Standard Oil Co.). 30¢.

■ — ALLSTATE Cat. No. — 4523 F (Sears-Roebuck). 23¢ plus postage.

■ — SUNOCO DYNALUBE (Sun Oil Co.). 35¢.

■ — HAVOLINE (Texas Co.). 35¢.

■ — SINCLAIR OPALINE (Sinclair Refining Co.). 30¢ and 35¢.

■ — RICHFIELD (Richfield Oil Corp.). 30¢.

■ — PHILLIPS 66 (Phillips Petroleum Co.). 31¢.

■ — PUROL (Pure Oil Co.). 31¢.

■ — TEXACO (Texas Co.). 30¢.

■ — AMOCO (American Oil Co.). 25¢, 30¢.

■ — CITIES SERVICE (Cities Service Oils). 25¢ and 30¢.

■ — MACMILLAN RING FREE (Macmillan Petroleum Corp.). 35¢. Packaged in fiber containers.

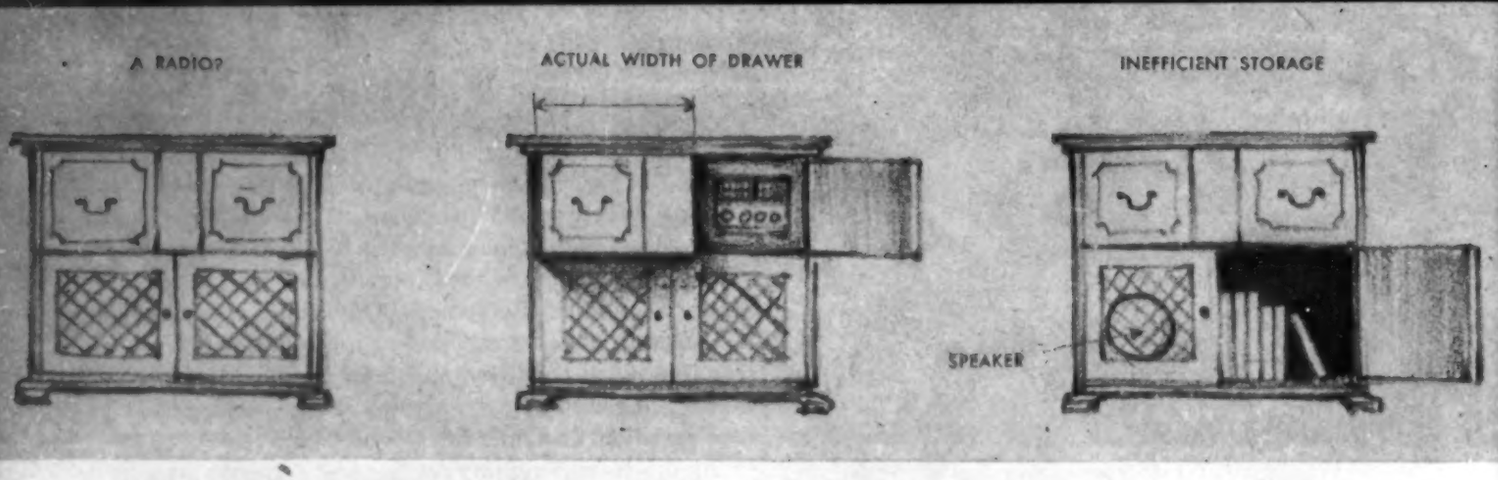
■ — CAPITOL (Atlantic Refining Co.). $1.20 per 2-gal. can (cost per qt., 15¢).

■ — BELMONT (Straus Stores Corp.). 22¢ for 1 qt., $3.29 per 5-gal. can (cost per qt., 16¢).

■ — SUNOCO (Sun Oil Co.). 25¢. Very low viscosity index.

■ — GOLD CREST Cat. No. — 4476 (Sears-Roebuck). $1.19 per 10-qt. can (cost per qt., 12¢ plus postage). Very low viscosity index.

■ — WEARWELL (Western Auto Supply Co.). $1.10 per 2-gal. can (cost per qt., 14¢). Very low viscosity index.



The Shape of Things

by ***Eliot F. Noyes,*** *Design Director at Norman Bel Geddes & Company; formerly Director of the Department of Industrial Design of the Museum of Modern Art in New York*

The cabinets of the radios rated this month are all representative of the designs currently offered to the public. There is no point in analyzing them as though they were serious efforts at good contemporary design, because in no case has this been the aim of the manufacturer. In the *Silvertone* 7115 and *Philco* 47–1230, the manufacturers have adopted a type of design using contrasting veneers and exaggerated forms to give an effect of size and richness without great expense. These cabinets suggest no particular ancestry but have a definite kinship to a more dazzling relative, the juke box. Both of them are mild examples of what the furniture trade calls "Borax".

With none of the sets has the manufacturer made any effort to find an appropriate form for a complex electrical instrument. With all but the two mentioned above, he has been concerned only with making his radio look like a piece of 18th century furniture, presumably on the theory that many of us live in some sort of 18th century surroundings, or would like to. The *Scott* and *Fisher* radios (*Reports*, April) showed how many absurdities occur in this game of make-believe. In the present group five or six sets offer more of the awkward details that result when form follows fashion instead of function. Four of these sets, the *Farnsworth*, the *Crosley*, the *Philco* 1213M, and the *Silvertone* 7117, are very similar in arrangement and appearance (*see cut*).

In each case the radio is disguised as a piece of furniture with two drawers above and a pair of cabinets with doors below. The record player is in the left-hand drawer, but it is too wide to fit behind what shows as the face of the drawer. As we open it, the actual drawer face turns out to include part of the wood which had seemed to be a fixed piece dividing the two drawers. To find the radio, we try the right-hand drawer; this never turns out to be a drawer, but is a door, hinged either at the bottom or the right edge. The radio controls are behind it and with them the 18th century disappears. There is a door handle to the cabinet at the lower left, but this does not open. The speaker, which is round, is mounted somewhere behind this rectangular shape.

Astonishingly, the cabinet at lower right turns out to be a cabinet, but a check of its dimensions quickly shows that it is not efficient storage space either for record albums or bourbon. All this silliness where nothing-is-what-it-appears-to-be belongs more to the world of exploding cigars than to design. Manufacturers argue that buying habits of the consumer public support them. But those habits are largely conditioned by the torrents of bad design which the manufacturers send forth.

The whole problem of radios as furniture is intelligently tackled by Walter Buehr in an article in the March issue of *FM and Television*. He points out that whether you call a radio set a machine or a musical instrument, in neither case is it a piece of furniture, any more than a violin, kettledrum, or clarinet can be called furniture. But many people do buy a radio because it will go well as furniture on the north wall of the living room, or buy a small table model which will be inconspicuous and not take up space. In neither case are they getting the best that radio can provide in quality of entertainment. Furthermore, as much as two or three hundred dollars of the total cost of a big set may be simply the cost of the cabinet.

Mr. Buehr argues that a shifting of the design emphasis from furniture to engineering and performance would be advantageous to the manufacturer and dealer as well as the consumer. He states that by mounting the radio chassis by itself and the speaker and amplifier in a separate case which can be located elsewhere, a conventional FM-AM set now retailing for $650 could be reduced to around $350, and with no loss of quality. Furthermore, the box for the speaker may be eliminated entirely if the speaker can be mounted in the wall, in a bookcase, over a closet door, or even in some part of an existing piece of furniture.

The dealer, on the other hand, would be relieved of the headache of style obsolescence, and could stock a selection of radio chassis, speakers, and amplifiers, which could be combined to meet the price and quality requirements of almost anybody.

Busy Season

Some tips from CU's consultant on what to do about lawns, vegetable and flower gardens now

In June your vegetable garden is beginning to be useful, or should be, and your flower garden is reaching its height. Crab grass and poison ivy are probably flourishing, too. Now is the time to prolong the vegetable garden's life by sowing for a late summer crop; to start seedlings for next season's perennials; and to launch an all-out campaign against crab grass and poison ivy. For this interesting season, herewith some suggestions from CU's garden consultant.

Second sowing: If you left room for succession crops this Spring, plant more beet and carrot seed now, a little deeper than before. Squashes — Butternut, Cocozelle and Zucchini are good — can still be planted, and so can snap beans. We recommend Longreen and, although its germination is not high, Improved Commodore, a Kentucky Wonder type on dwarf vines. Sow late in July for fall Chinese cabbage and help the seed along with a starter solution (*Reports*, July, 1944; *Vitasalt* and *Hy-Gro* are "Best Buys").

Perennials: Many perennials can be sown now. If seedlings are transplanted when they're big enough to handle, many will be large enough to plant permanently in the Fall. Less hardy seedlings may winter more safely in a cold frame.

A seed bed in a sheltered spot, shaded from the sun and constructed with a lath frame, is excellent. Make sure the soil is moist by partially filling extra-large furrows with soil and water before sowing. Water the bed through a piece of coarse burlap which can be removed when seedlings appear. When several pairs of leaves have formed, plants are ready for thinning and transplanting.

Crab grass: From now until the middle of July crab grass germinates in lawns. 2, 4-D — at five times the usual concentration or five times the usual volume per square foot — will kill most crab grass seedlings, but will kill clover too, and will discolor Kentucky Blue Grass and fescues temporarily. Do not apply 2, 4-D to bent grass lawns. Other crab grass killers, such as *Zotox*, *Crabex*, and *Sinox*, are not very efficient and usually kill some of the permanent grasses, too. *Crabex* and *Zotox* are dangerous for children and animals.

A vigorous crop of basic grasses will discourage crab grass more than 2, 4-D. It is unwise to fertilize after crab grass has started and dry weather is beginning to check lawn growth, but some experts recommend an early June feeding of chemical fertilizer, when the weather still favors basic grasses.

Crab grass doesn't grow in the shade. So try adjusting the bed knife on your mower to cut two inches or higher, and let the long grass provide the shade. Then the crab grass that does germinate will have to grow upright and seed-heads can be clipped off and collected in a canvas grass-catcher. As the season advances, however, the crab grass stems that hug the ground *will* produce seed, and they have to be raked upright before mowing. After a season of this, you will probably be ready to do almost anything to thicken the stand of permanent grass. Early Fall is the time for lawn renovating.

Poison ivy: The best poison ivy killer is still ammonium sulfamate — *Ammate*. The esters of 2, 4-D *plus* ammonium sulfamate will kill poison ivy growing in the shade, and the mixture is less corrosive to the sprayer than the ammonium sulfamate alone, although this can be washed out of a sprayer pretty easily. Neither *Ammate* nor 2, 4-D ester is likely to kill large poison ivy plants with one application. The first treatment in early June should be followed by another about August 1st, and a third next Spring if new sprouts come up from the roots.

Dry borax, evenly distributed (10 pounds per square rod for acid soil; up to 15 pounds on neutral or "sweet" soil) kills poison ivy, but may also kill other nearby plants. Borax seriously injures most shrubby plants and small, shallow-rooted trees. Salt (one-half pound or more per square foot) kills the ivy, but sterilizes the soil.

Slipping roses: Rose cuttings can be made easily by taking stem sections of flowering stems about the time the bloom fades, and putting the lower ends of the cuttings in moist sand or sandy soil. Protect each cutting with an inverted Mason jar.

If worst comes to worst, here are some exercises. . . .

Summer Touring

How to be comfortable, though driving

The automobile can be the most uncomfortable form of long-distance transportation known to man. Furthermore, the low seats in late model cars force the body into just about the worst position possible for posture, digestion and circulation. If you have to do a long stretch of driving, try to have someone spell you at the wheel. The break will ease your muscles and rest your eyes. Let all your passengers get a chance at the front

What about speed?

Don't set off in an overloaded car; its handling becomes much more difficult if too much weight is concentrated in the trunk, poorly distributed along one side, or piled on the roof — although of the three spots the roof is best for overflow, because it gets some weight on the front wheels. Also, don't set off at too fast a clip. If you plan to drive faster than usual, warm up to it gradually (on a long trip you ought to allow a day or so) while you become adjusted to a faster tempo of perception and response.

Remember that after you have been driving at 50 mph, a reduced speed may *seem* like 30, when it's really nearer 40. A speed that seems reasonable for a sharp curve looming ahead may prove to be much too fast. This "adaptation with negative after-effect" — as the psychologists call it — may be counteracted by depending on your speedometer, not your sense of speed.

Usually the speeds you can maintain during the day are not maintainable at night. You may find you can keep up your daytime *average* even at lower speed, because of less traffic. At night, of course, the traffic accidents are minimized; but the chances of running off the road are greatly increased.

While traveling at touring speeds it is helpful to be

Feed the carburetor this way if the fuel pump gives out

The tool inventory is a long one

A list of articles which might come in handy on a long motor trip reads like a mail-order catalogue. At least you'll want a can opener, thermos, blanket, matches, rags, hunting knife, compass, toilet and facial tissues, paper towels and soap, and a flashlight with extra cells and bulbs. If you take sunglasses make sure they are good ones; *Polaroid* — either for glasses or a sun visor — is not recommended. Extra gas and oil are messy to handle, but wise precautions for remote areas.

The following tools will fit in a shoebox. If you are of a mechanical turn, and are accustomed to making small repairs on your car, you'll want the lot. If not, forget the

And in case of accident . . .

If your car is insured, don't start out without the identification card issued by the insurance company and a list of claim agents in the areas you plan to visit. If you are leaving the country, find out whether your policy covers you abroad. If you should have an accident, get full identification of the others involved, and all the witnesses you can find. Any injuries, or suspected injuries, should be examined by a hospital or doctor; if an injured party refuses to be examined, have the refusal made in the presence of a witness.

In the case of serious injury, remember that (1) people who are unconscious, have fractures or possible internal injuries should not be moved until trained help arrives; (2) serious bleeding must be stopped immediately; learn to make and apply a tourniquet; (3) shock accompanies serious injury; keep the patient quiet and motionless; if he is unconscious, do not force fluids. If he can swallow, alcoholic fluids or hot drinks containing sugar or salt are helpful.

Take along a kit containing the Red Cross First Aid Textbook, some 2% iodine, 1-inch adhesive compresses, a jar of vaseline or boric acid ointment for burns, indi-

seat: it is less windy than the back seat, and rides more easily.

If you are driving alone, varying the seat adjustment will give some relief. And if worst comes to worst, the following exercises, a modification of some designed for the Air Forces, should help take out your kinks. *Head and neck:* Tilt head back, hold, then relax. Pull chin in hard, hold, and relax. Rotate trunk left while turning head right, then reverse. Rotate head. Repeat exercises five times. *Shoulders:* Shrug high, hold, then relax. Rotate each shoulder, then both together. *Arms:* Clench fists, then open hands wide, wiggle fingers. Repeat 5–10 times.

Basic posture: Pull in abdomen, tighten muscles of buttocks, hold; then raise shoulders, carrying them back and down. Relax. Repeat 5–10 times. Do not hold breath during these exercises. *Legs and toes:* Tighten thigh muscles, hold, then relax. Press knees together tightly, hold, then relax. Repeat 10 times. Point toes down hard, then up; repeat 10 times.

Besides being uncomfortable, driving for long stretches, especially into the night, can be dangerous. With sleeplessness comes a deterioration of coordination and reflex action. And remember that stimulants which keep you awake — including black coffee — ultimately act as depressants.

able to recognize highway signs, whose shapes are standardized all over the United States. Octagonal signs mean STOP. Round ones indicate railroad crossings — the number of tracks represented by bars. Diamond signs mean SLOW DOWN, and square signs give zone information — schools, etc. Rectangular signs give specific traffic directions. By recognizing their shapes, you are ready to respond to highway signs before you can read the legends on them.

As for maps, different companies use different codings, so stick to one company's as far as possible — only *Texaco* covers the entire country. *AAA* maps are uniform everywhere.

Recognize highway signs by their shapes: this one says slow

tools, and hope any breakdowns occur within phoning distance of a repairman: a hammer, 6-inch pliers, thin-jawed adjustable end wrench, 8-inch screwdriver, 3-inch screwdriver, Phillips head screwdriver, side-cutting parallel-jaw pliers, "water pump" adjustable pliers, parallel-jaw lock-on pliers, small hacksaw frame with blades, flat file, set of open-end wrenches, coil of soft iron wire, some very fine wire, 6 feet of synthetic rubber windshield wiper hose, bottle stopper. Sash cord —100 feet of it — makes a good tow-rope. Packaged wire towline is stronger, costs a little more.

Most car trouble involves tires, ignition, cooling system or fuel pump. For tires, take a jack, wheel blocks, plank, ground cloth, tube-patching materials and a pair of pry irons. A tire pump will also blow out a fuel line. With an inflating hose, you can carry your spare at 60 pounds and reinflate most flats. Test for comparative air losses daily. (March, 1947, *Reports.*)

If the fuel pump gives out you can feed the carburetor with an inverted, stoppered bottle of gas connected to the fuel pipe by synthetic (don't use real rubber) wiper hose until you make town. For driving for an extended period above 5000 feet have your car fitted with high-altitude carburetor jets — but have them removed when you come down. Ignition trouble is serious: no spark, no go. If you know what to do with it, take along a kit containing spare points, a condenser and rotor; take also a roll of friction tape, extra spark plugs and fuses.

vidually wrapped 2-inch sterile gauze squares, surgical scissors, a pair of 3-inch splinter forceps, a small bottle of Burow's solution, to be diluted 1:15 with water for sunburn and poison ivy, and a cake of brown soap for use immediately after exposure to poison ivy. You may also wish to include: a medicine dropper and sterile mineral oil for the eyes, paper cups, large safety pins, aromatic spirits of ammonia, a triangular bandage about 40-inches square, and some absorbent cotton.

One further word of caution: ask your physician before you leave about the advisability of typhoid inoculation, foods to avoid in certain areas, etc.

Making up your own first aid kit is inexpensive and easy

 Harold Aaron, M.D.—Medical Adviser

Diabetes and the Emotions

Medical research may yield new insight into basic treatment of the condition; meantime insulin and diet can give the diabetic a full and useful life

The discovery of insulin in 1921 by the Canadian doctors, Banting and Best, has saved the lives of millions of patients suffering from diabetes. Many doctors and patients today, who use insulin as a matter of course, still remember the difficulties of maintaining health and life in the pre-insulin era when children and young adults either would live in a state of semi-starvation or would succumb rapidly to the disease.

Today the *average* diabetic child of 10 may be expected to celebrate his fiftieth birthday (and, in plenty of cases, many more); prior to 1922, he lived little more than a year after the appearance of symptoms. Formerly the 30-year old diabetic seldom lived beyond 36; today he has a life expectancy of at least 30 more years. And these added years of life are useful and active, not years of invalidism.

Diabetes Mellitus (Diabetes — *Greek*, to go through as a siphon; Mellitus — *Latin*, sugar or honey) is a condition in which there is persistent impairment of the rate at which the body uses up carbohydrates. Evidence that diabetes may be caused by disease of the pancreas was obtained late in the 19th century when Drs. von Mering and Minkowski removed the pancreas of animals and produced the typical symptoms of diabetes. Diabetes in human beings resembles the disorder in animals who have lost their pancreas, and insulin obtained from the pancreas of cattle or pigs will relieve the *symptoms* of human diabetes. For in diabetes, the sugar in the blood reaches abnormally high levels; and insulin improves sugar combustion in the tissues and lowers the blood sugar to normal levels. Insulin also retards the breakdown of proteins in the tissue and the formation of keto-acid bodies from fats.

But there is no real proof that the disorder in man is caused by a deficiency or disease of the pancreas, or of any other hormone-producing glands. That is why Diabetes Mellitus is considered a functional disorder or "condition" rather than a specific disease.

Obesity is often cited as predisposing to diabetes. In simple obesity, tolerance to carbohydrates may be diminished and disturbances in sugar regulation typical of diabetes may appear. But these are relieved by weight reduction and carbohydrate tolerance is restored to normal. Nevertheless, obesity and overeating frequently precede the onset of true diabetes in persons with a family history of the disease.

Heredity is perhaps the most important factor in the development of diabetes. Persons in whose family there is a history of diabetes should have physical examinations, including urine tests, at least once a year. If the person is overweight or has symptoms such as increased thirst or weakness, a "sugar tolerance test" may be necessary to determine whether a potential diabetic is an actual diabetic. The blood sugar of the diabetic patient rises further after each meal than does that of a normal subject on a similar diet, and returns to the pre-meal level much more slowly. A blood sugar level of 120 mgm. three hours after a 100 gram dose of glucose is considered fairly strong evidence of diabetes.

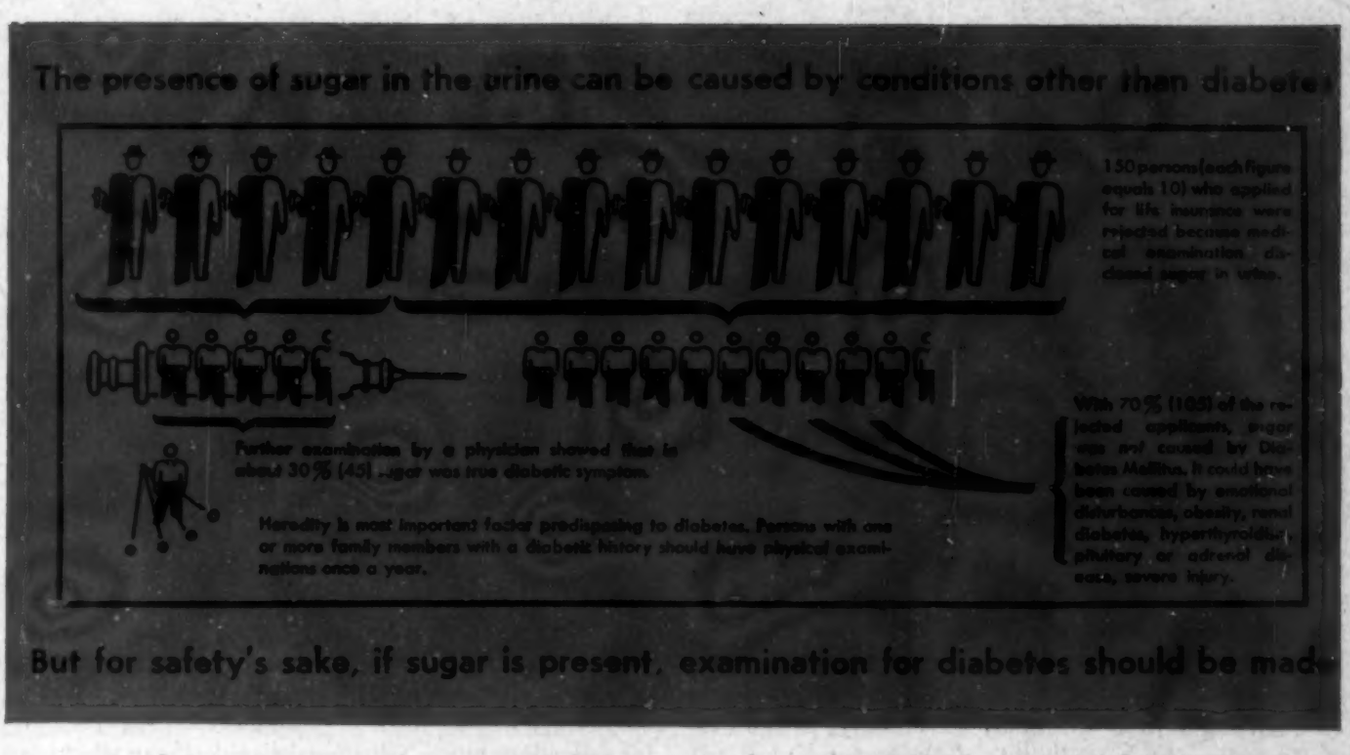
Sugar and its causes

But the finding of sugar in the urine is not positive proof of diabetes. One investigator found that among 150 persons rejected for life insurance because of sugar in the urine, only 30% had true Diabetes Mellitus or developed the disorder in subsequent years.

The sugar found in the urine of diabetics is glucose. Other sugars such as pectose, fructose, galactose, sucrose and maltose also can be excreted into the urine. And even glucose in the urine can occur in states of starvation, after severe injuries, during severe infectious diseases, in hyperthyroidism, pregnancy, and in diseases of

Sodium propionate

Sodium propionate, an ingredient of the dandruff and falling hair lotion described in the April Reports, *can be obtained in NYC at: Amend Drug and Chemical Co., Inc., 117 E. 24th St.; City Chemical Corporation, 132 W. 22nd St.; Eimer and Amend Co., 633 Greenwich St. Prices range from 25¢ to 50¢ per ounce. Remit in advance for out-of-town orders.*


The presence of sugar in the urine can be caused by conditions other than diabetes
150 persons (each figure equals 10) who applied for life insurance were rejected because medical examination disclosed sugar in urine.
Further examination by a physician showed that in about 30% (45) ...gar was true diabetic symptom.
With 70% (105) of the rejected applicants, sugar was not caused by Diabetes Mellitus, it could have been caused by emotional disturbances, obesity, renal diabetes, hyperthyroidism, pituitary or adrenal disease, severe injury.
Heredity is most important factor predisposing to diabetes. Persons with one or more family members with a diabetic history should have physical examinations once a year.
But for safety's sake, if sugar is present, examination for diabetes should be made

the liver, pituitary and adrenal glands, and in a benign condition known as renal diabetes. For safety's sake, however, sugar in the urine should be considered as caused by Diabetes Mellitus until proven otherwise by special tests.

That hyperglycemia (excess sugar in the blood) and glycosuria (glucose in the urine) can occur in normal animals and persons in states of anxiety and nervous tension is now a well-known fact. The famous experiments of Dr. Walter B. Cannon and his associates in the Department of Physiology at Harvard Medical School showed that fright or rage induced in an animal caused the appearance of abnormally high levels of sugar in the blood which spilled over into the kidneys. Later Dr. Cannon and other physicians examined the urine of 25 members of the Harvard football squad immediately after a Yale game, and found sugar in the urine of 12. Five of these were among substitutes who did not play. One excited spectator's urine was also found to contain sugar — which disappeared the next day. Transient change in sugar metabolism is caused by a sudden outpouring of adrenalin. When the tension subsides, the sugar metabolism is restored to normal.

It is thus easy to understand why diabetes may become worse or more difficult to regulate during or after emotional disturbances. Whether an emotional shock can bring on genuine diabetes in a latent or potential diabetic is still open to question. But the case for emotional disturbances causing shifts in hormone balance of various endocrine glands has been proved for disorders of the thyroid and other endocrine glands. It would seem entirely consistent to expect and to see persistent disturbances in carbohydrate metabolism after emotional upset. (One doctor, in fact, actually reported an increase in the frequency of cases and a worsening of the condition among diabetics during a period of exciting stock-market speculation.)

Recently, Drs. Luken and Dohan of the University of Pennsylvania showed that true diabetes could be produced in cats by maintaining a high level of sugar in the blood for a period of about two weeks. This caused irreversible changes in the pancreas, characteristic of Diabetes Mellitus. It is conceivable that in man, too, an elevation of the blood sugar for shorter or longer periods, caused by emotional tension, might likewise produce a permanent alteration in the body chemistry characteristic of diabetes. This is obviously most likely to occur in persons with a hereditary predisposition to diabetes.

Emotional strain: contributing cause?

In some cases of diabetes studied by psychiatrists, a long period — months and years — of mental stress and strain had preceded the onset of the disorder. Of great importance in this context is the type of emotional disturbance. Obvious feelings of excitement, rage and frustration may cause a temporary elevation of the blood sugar. But a football game or a violent altercation provide opportunities for discharge of the emotions through the voluntary nervous system — by cheering, shouting or cursing. The type of emotional disturbance that may have far more significance in influencing a persistent alteration in metabolism is that in which the emotional tension gets no release, or is repressed. Persistent anxiety states, poor adjustment in marital relations, deep

feelings of insecurity and the like are common enough and may have this result in persons with a disposition to diabetes. It is not definitely known, however, that particular neuroses can manifest themselves in a persistent alteration in carbohydrate metabolism — that is, in Diabetes Mellitus. By analogy, such a consequence seems possible, since other organ-disturbances such as peptic ulcer have been shown to be conditioned by particular mental patterns.

Investigations of the effect of emotions on a disease such as diabetes can be carried out through the tools of psychiatry, including psychoanalysis. Unfortunately, this is an expensive and time-consuming process, and therefore can be undertaken only by well-financed research groups in medical centers. The prestige which psychiatry is gaining among medical practitioners is a hopeful sign that a coordinated program of research, employing psychiatric along with physiological methods, may not be far off.

That way may lie one promising avenue to basic treatment of diabetes itself. In the meantime, the diabetic patient can keep the manifestations under control through appropriate diet and, if necessary, insulin. A well-regulated life with skillful supervision by a physician can make the life of a diabetic as long *and as useful* as that of the non-diabetic.

Who's Got the Vitamins?

You've still got to eat to stay well, despite the simplified claims of advertisers on the vitamin band wagon

Mr. Stuart Cloete recently published a book, "The Third Way," which has some words to say on the subject of advertising. "The art of advertising," he says, "appears to be to make people want what they have not got, or become dissatisfied with what they are, and how they look. Fundamentally, it is the art of making people discontented and unhappy in order to sell them a product." Mr. Cloete could add that misinformation, deception, and half-truths are all too often the techniques used in the practice of the art.

Consider, for example, the full page ads for *Ovaltine* appearing in many magazines and newspapers. *Ovaltine*, say the ads, contains "more vitamin G than 1 pound of sirloin steak — more protein than 3 eggs, more calcium and phosphorus than 2½ servings of American cheese, etc., etc." The inference — Why bother about a so-called well-balanced diet when all you need to do to consume adequate vitamins, minerals, protein, energy, etc., is to take *Ovaltine*? That, at least, appears to be what consumers are supposed to infer from the advertisements.

Whether or not the vitamin and mineral comparisons in the *Ovaltine* ads are accurate, it is sufficient to state that no one familiar with modern nutrition would advise that by drinking two glasses of *Ovaltine* daily, "you've solved the vitamin problem" or any other nutritional problem. Some vitamin capsules are far more potent in vitamins than *Ovaltine* powder, yet no authority would advise the use of those capsules as a substitute for a good diet.

In diseased states where a normal diet cannot be eaten, or where it cannot be digested or absorbed or utilized by the body, doctors prescribe nutritional supplements including vitamins. Even *Ovaltine* may have some virtue in such circumstances for short periods until normal conditions are restored. But the normal person who can buy simple, natural food substances doesn't have to buy *Ovaltine* to meet nutritional needs. These natural foods, if cooked or prepared with ordinary precautions, will provide adequate vitamins, minerals, proteins and energy value.

Vitamin deficiencies

Diseases caused by deficiencies in vitamins and other nutritional factors have been intensively studied now for a decade or more. Nutritional disorders may affect any organ but the effects of deficiency can be observed most readily in the skin, eyes, mouth and nervous system. Many recent investigations have dealt with the effects of vitamin B deficiencies on the skin and mucous membranes.

When laboratory animals are fed a diet deficient in riboflavin — one of the B vitamins — striking skin changes result. In man, the changes occur not in the skin but at the juncture of skin and mucous membrane — typically at the lips and nose. Inflammation of the mouth, tongue and eyes has also been observed. The lesions can be cured by fairly large doses of riboflavin — much larger than are present in vitamin preparations sold over drug counters.

A deficiency in pantothenic acid — also a B vitamin — causes changes in the skin and hair of laboratory animals. It is noteworthy that in all recent experiments no graying of the hair was noted as a symptom of pantothenic acid deficiency. This should help to set straight those persons who have been persuaded by advertising to buy vitamin preparations containing pantothenic acid and other vitamins in the hope that these vitamins would convert gray hair to normal color. There is no evidence that pantothenic acid deficiency occurs in man; nor that taking large doses of this vitamin will have any influence on hair color or texture.

The view that the skin eruptions and other lesions occurring in human pellagra are caused by a deficiency in nicotinic acid — one of the B vitamins — has been seriously challenged of late. One group of doctors, for example, has found that the healing of pellagra lesions in the dog is appreciably accelerated if the diet contains

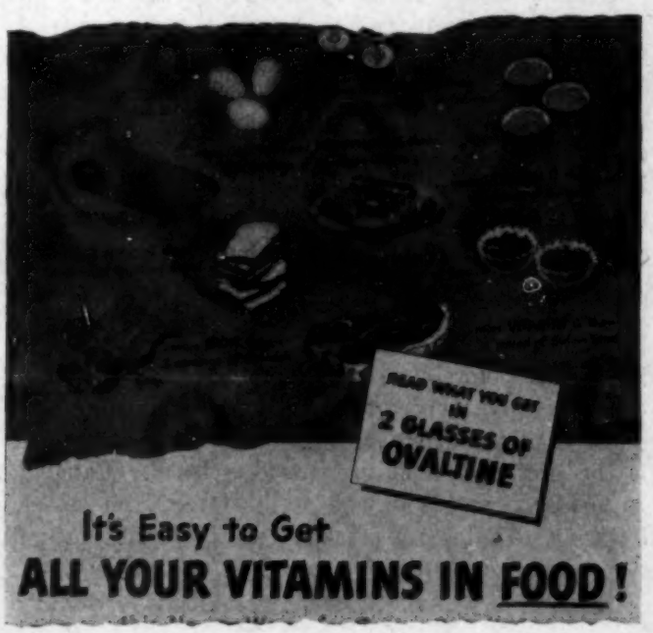
folic acid, still another B vitamin. More than that, there is now evidence that human pellagra, and especially that occurring in children, cannot be cured by pure vitamins but that, on the contrary, such treatment seriously aggravates this condition.

Pellagra appears to be very common in South Africa. Drs. Gillman and Gillman made extensive studies on nearly 300 South African children with pellagra and reported that all children treated with vitamins alone became rapidly worse and died. The disorder was considerably improved by administration of liver extract and dramatically improved by the use of dried hog-stomach.

The report by these doctors (in the *Journal of the American Medical Association*, Sept. 1, 1945) shows the futility and even the danger in the use of pure vitamins alone to treat nutritional disorders. Which should remind consumers again that, as CU has long insisted, a diet containing an abundance of natural foodstuffs — raw fruits, breads and unrefined cereals, milk products, vegetables and meat products — is the only guarantee against vitamin deficiencies. Dependence on vitamin products invites trouble or even disaster. (Vitamin D, also known as the antirachitic vitamin, must be added to the diets of infants and children in order to prevent rickets.)

This sound health principle of dependence on a good diet for vitamins is given further support every year by new experiments. For example, animals fed a synthetic diet containing all known accessory food factors, such as vitamins and minerals, will develop skin eruptions. It is obvious that unknown dietary factors must be assumed to be necessary for the maintenance of normal functions of the skin. Wholesome natural foods contain *all known*, as well as *unknown*, dietary factors. Vitamin capsules and preparations like *Ovaltine* contain only *some* of the *known* factors.

The inference: why bother with a balanced diet? The facts: Ovaltine *contains only some of the known factors*



Athlete's Foot

Inflammations worse than the original infection may result from uncritical use of patent medicine treatments

Ointments and lotions in treatment of athlete's foot infection, or "Tinea Pedis," have been used since 1880. The famous Whitfields ointment was at one time considered a specific cure but now is used sparingly, under medical supervision, and only for the thickened areas on the soles of the feet. Severe inflammation and irritation, worse than the original infection, have occurred from careless use of Whitfields ointment, iodine solutions and the dozens of patent medicines sold with abandon to the uncritical consumer.

Each patient with athlete's foot must be treated as an individual according to his needs and special symptoms. When the inflammation of the feet is marked by blistering, oozing and redness of the toes, only the mildest remedies should be applied. The best remedies during the acute stages are wet dressings or foot baths of Burow's solution (1 part to 15 parts of cold water) or potassium permanganate solution 1:3000 (one 5 grain tablet completely dissolved in a quart of cold water). A half-hour soak twice daily for several days should be sufficient to ease the acute inflammation and itching.

Once the acute inflammation has subsided, one of the newer fungicides may be applied. Among these are propionic acid and undecylinic acid and their salts, marketed as *Desenex*, *Sopronol*, *Tridecyl*, etc., available as powder, ointment or lotion. They should be applied to the affected areas as ointment or lotion at least once daily.

Recurrences and reinfections by the fungus of athlete's foot is the rule. Therefore prophylactic measures are important. Throughout the year it is essential for susceptible persons to keep the feet as dry as possible by the use of cigarette paper or lamb's wool between the toes; and to wear shoes that do not cramp the toes and permit some ventilation. A powder mixture consisting of equal parts of U.S.P. Talc and one of the fungicides as powder should be dusted on the feet each morning. Dead skin is the breeding place of fungi and should be removed manually. Walking barefooted in public bath houses should be avoided. Special foot baths in public pools, and "fungicidal" mats, sprays and flooring have been found to be of no value in prevention.

Medical Developments

How Long for Bed Rest?

During the past few years, doctors have been questioning the wisdom of prolonged bed rest after surgical operations, accidents, or severe illness, especially in middle-aged and elderly persons. One of the serious complications sometimes resulting from such bed rest is the development of blood clots in the veins of the legs and the tendency of such clots to break off and be carried to the lungs. A clot in the leg veins is called a "thrombus." When a thrombus is carried to a distant part, such as the lungs, by the blood stream, it is called "embolus." The process by which a vein becomes obstructed by a thrombus is called "thrombophlebitis." A familiar example of thrombophlebitis is the "milk-leg" occurring after confinement or in such severe illnesses as typhoid fever. When thrombosis occurs in the veins of one who is confined to bed after an operation, an accident, or an acute illness, the doctor may not be able to detect the thrombus; and during the quiet convalescent period, it may travel to the lungs. Occasionally, the clot is so large or there are so many of them that death results. Because of increasing awareness of the problem, surgeons and internists have been looking for means of early recognition and of prevention of thrombosis.

One such means is the reduction to a minimum of the period of confinement in bed. Many surgeons now get their patients out of bed one to five days after an operation rather than after the traditional two or three week period. Many women are urged to sit up out of bed a day or so after confinement. Patients with coronary disease of the heart are kept in bed as little as possible. "Early ambulation," as the doctors call it, reduces the frequency of vein clots. For those who must remain in bed, the sitting or reclining position with the legs relaxed is discouraged. As often as possible, the legs are actively exercised, preferably while elevated so that the rate of blood flow through the veins is increased. A sluggish blood flow encourages clots — a normal or accelerated blood flow will prevent or minimize clot formation. Elevation of the foot of the bed also helps blood circulation in the legs.

For the prevention and treatment of clots, doctors also employ two anticoagulent drugs, "heparin" and "dicoumoral." These drugs can be given only in hospitals since accurate and repeated tests of blood clotting are necessary during treatment to prevent hemorrhage.

S. 545: Charity Medicine

Hearings on the Taft-Smith-Ball-Donnell "Health" Bill (S. 545) by a subcommittee of the Senate Committee on Health & Education started on May 21, 1947, in Washington. They will probably continue through June. Consumers Union joins the Physicians' Forum, the Committee for the Nation's Health, and other consumer and professional organizations in unqualifiedly opposing this legislation. Here's a list of some objectionable features:

1. It covers only "low income" population and applies a "means" test to determine eligibility. In short, it is charity medicine — of the kind given in free hospital clinics.

2. It provides trivial funds for trivial services. It does not provide the comprehensive diagnostic and treatment services provided by the Wagner-Murray-Dingell Bill.

3. There is nothing to indicate how doctors, dentists and hospitals would be paid. The apparent intention is to preserve the fee for-service system with all its evils.

4. Administrative control would be placed in the hands of organized medicine — the American Medical Association, et al, which have fought improved medical care as represented in the Wagner-Murray-Dingell Bill all along the line.

5. The entire program of services would depend on a Federal appropriation of 200 million dollars. Because of the involvements of a means test, social service investigations into family finances and related procedures, an inordinate amount would be consumed in administration.

6. There are no provisions for enforcing the requirements of the bill.

Consumer organizations should write to Senator H. Alexander Smith, who is in charge of the hearings, and ask to be heard in opposition to S. 545. A copy of the letter or telegram should be sent to the Senators of the organization's own state.

Motion-Sickness

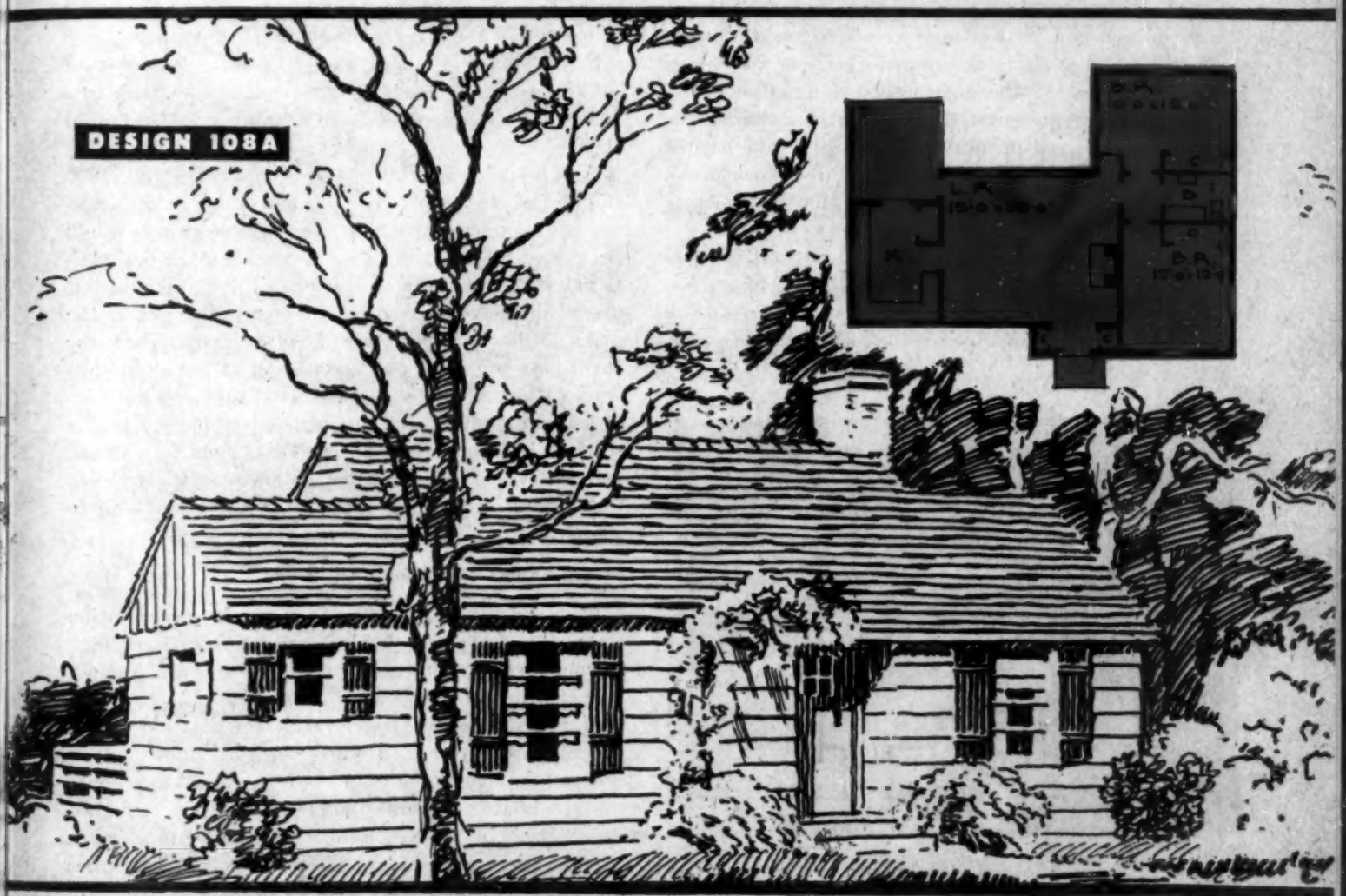
Sickness when travelling at sea, in the air or on land is known as motion-sickness. The symptoms are familiar to most people. Those who are particularly sensitive will become ill even on a short ferry ride. Research carried out by the National Research Council of Canada during the war years has established that the best drugs for combating motion-sickness are those of the "belladonna alkaloids" combined with a sedative drug of the barbiturate series.

Capsules containing hyoscine hydrobromide (.1 mgm.) hyoscyamine hydrobromide (.3 mgm.) and a barbiturate drug (about 130. mgm.) are given two to four hours before exposure to motion. Thereafter, one capsule is given every 8 to 12 hours, depending upon reaction to the drugs and sensitivity to motion. Such is the prescription at present used by the Canadian Armed Services.* It may be obtained from a pharmacist but requires a doctor's prescription. Undue sleepiness or dryness of the mouth requires reduction in dosage.

*Canadian Medical Association Journal, April, 1947, p. 417.

by Simon Breines and Ralph Pomerance, architects

The Stock Plan House



CU's consultants analyze a typical stock plan, point out pitfalls which have caused this building method to languish

Between the extremes of the ready-built speculative house (the buyer pretty much takes what is thrown at him) and the built-to-order, architect-supervised house (the buyer can suit his own special purposes) lies the realm of the stock plan. It is a relatively uncharted realm, but its attractions are great enough to interest many would-be homeowners who feel that they cannot afford the full services of an architect and who do not want to risk the pitfalls of the speculative house. But the stock-plan method of home building itself has pitfalls, and it is the purpose of this brief report to illuminate some of them.

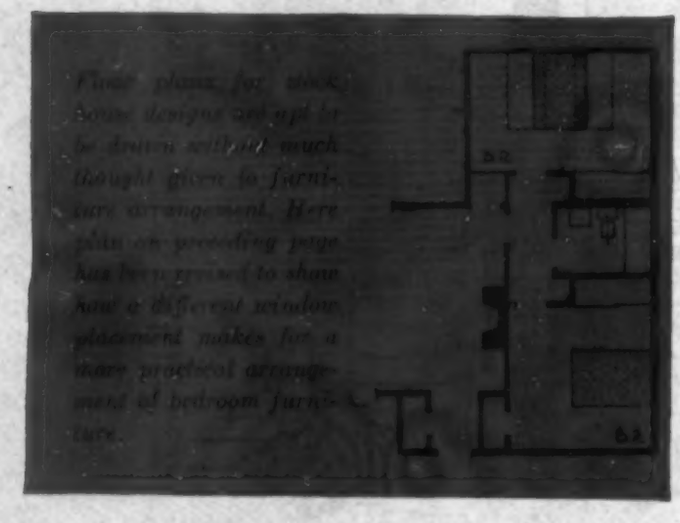
The stock-plan method was given a formal try some years ago by the American Institute of Architects, in the form of a Small House Service Bureau. That was a regional organization, nonprofit and cooperative in character. It functioned by getting interested architects to make up plans for various types of houses (that is, stock plans), which it then placed on file in its branch offices. A prospective homeowner could study the plans, select one which suited him best, and get a copy of it for his own use for $25 or so. Thus partially and indirectly, and at nominal cost, he got the services of an architect, at least in the design of the house.

But the project languished and is today all but dead. Just why, no one seems to know for sure. There was not much promotion of the idea by the profession, which may be one explanation. And among others would have

to be included an inherent characteristic of any stock-plan setup: namely, a local architect may be needed in the end to adapt the plan to particular site conditions.

Despite the failure of this large-scale undertaking, the stock-plan formula continues to be tried from time to time, principally by periodicals in the small house field. Their output varies widely; one of the better examples is provided by *Your Own Home*, a national magazine which is a kind of poor man's *House & Garden*. On the premise that the characteristics of stock-plan building are basic rather than special, and that an evaluation of one representative plan can thus clarify the problems involved in most of them, let's take a close look at one of *Your Own Home's* featured stock plans. It was that magazine's "House of the Month" for April, 1947. The plans sold for only $5.

We paid the charge and got in return a set of blueprinted plans identified as "Design 108A," plus a set of printed specifications intended to be applicable to all of the various plans offered by this magazine.



Let us examine the floor plan first. The house is entered through a living room of fairly good size. The numerous doors and the fireplace (which seems to have been located where it is because there just was no other place to put it) leave little space for the proper arrangement of furniture. In the rear bedroom, the position of the doors and windows again presents a needless limitation. The only possible arrangement of furniture in this room would seem to be twin beds with the rear window between. The front bedroom would permit only one bed, single or double, against the fireplace wall. The bed might be placed in the corners but that is undesirable for cleaning and for making the bed.

As for the mechanical work, the kitchen and the bathroom are remote from each other and would require considerable piping for such a modest house. With a small hot water heater, the long run to the bathroom would result in a wasteful wait for hot water at the faucet. This would be true even with hot water pipe insulation which, incidentally, is not provided for in the specifications. Provision for heating in the little closet off the upper corner of the living room would seem to be limited to a hot-air space unit. For any other system (the space heater would not be adequate in cold climates), it would be necessary to provide a utility room or a cellar. The latter would require a stair. These stock plans show the floor raised several steps above the ground. No provision is made for proper ventilation of this space.

As shown here, this house comprises about 1000 square feet. In order to provide adequate heating, storage and laundry space, however, some more area would be needed either at or below ground level. Such additional space, and the correction of the room layout described above, would require many changes in the plans. Moreover, the three blueprints comprising the stock plan represent only about half of the architect's work. Many larger-scale construction details, both interior and exterior, are not included in the stock-plan service. It is only fair to say that *Your Own Home* makes it very clear in its instructions to the purchaser that a local architect is essential to carry the plan to completion.

"From $8500": emphasis on "from"

Now a word as to cost. The magazine presentation states that "Design 108A" is "to build from $8500." Of course, the qualification "from" covers a lot of ground. Perhaps the house as shown could be built today in a mild climate for that price. It is certain that where Winters are severe and where such additions as we suggest are made, the construction cost of this house would probably be "from" $12,000. And that would not include the cost of land, utilities (water, sewage, etc.), landscaping, architect's fee, plus a lot of smaller charges for legal, recording and other services. The man who wants to build this "House of the Month" had better be sure he can afford to spend at least $15,000 before he gets through.

We might conclude with a word about the specifications which go with this stock plan. These, it happens, are quite adequate for the purpose, but they necessarily include many items which are to be selected by the owner. Among these are the fireplace mantel, kitchen cabinets, wall finishes, hardware, lighting fixtures, hot and cold water supply (kind of pipe material), plumbing fixtures, hot water heater, heating system, etc. There is a wide range of choice and price in such items which can make a considerable difference in the total cost. The man who decides to use a stock plan would be wise to determine the cost of all the material he is to select beforehand and provide for it in his budget.

ANALYSES OF ECONOMIC AND LEGISLATIVE DEVELOPMENTS AFFECTING CONSUMERS

Bread & Butter

Prices, Profits and Depression

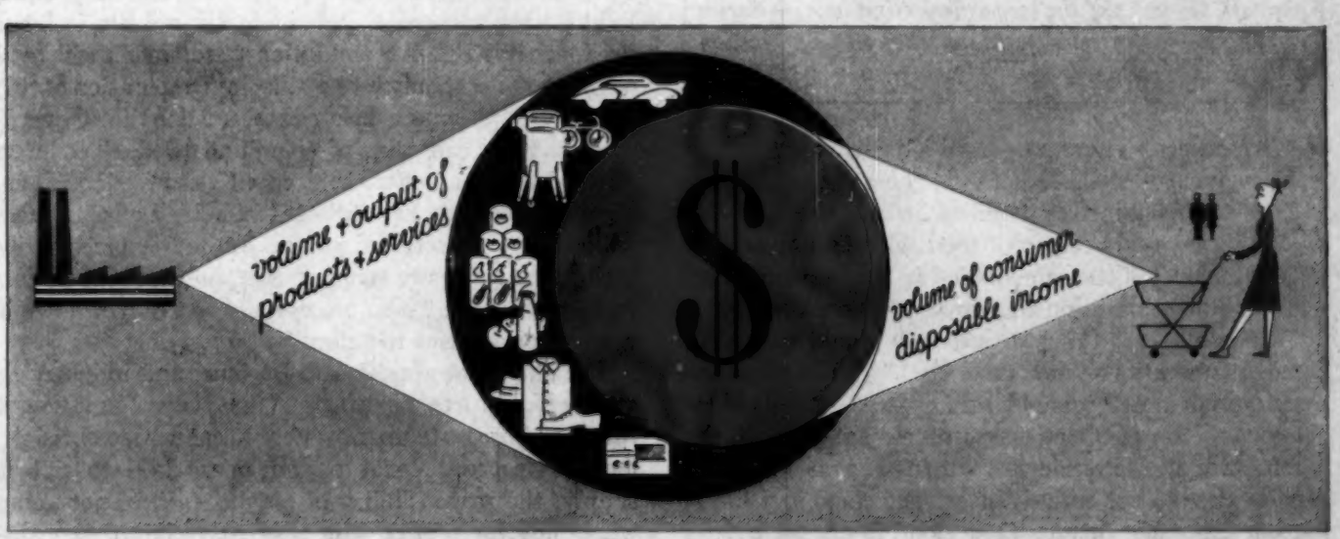
"If OPA is permanently discontinued, the production of goods will mount rapidly and through free competition prices will adjust themselves to levels that consumers are willing to pay . . . Supply will quickly catch up with demand. Prices will be fair and reasonable to all." — From an advertisement published by the NATIONAL ASSOCIATION OF MANUFACTURERS, June, 1946.

A year ago the great majority of consumers urged Congress to continue effective price control in order to prevent a repetition of the 1919–1921 boom-and-bust pattern. That segment of business represented by the National Association of Manufacturers claimed, on the other hand, that if controls were removed, production would rise and prices would come down automatically. Congress let price control lapse in mid-1946 and the Administration finally killed it last Fall.

Production did go up. As measured by the Federal Reserve Board, the volume of industrial production (1935–1939 equals 100) rose from 170 in June, 1946, to about 189 in March, 1947, an increase of some 11%. But prices went up too — at a rate unprecedented in the history of the country. In the 10 months following the lapse of price control, wholesale prices shot up about 31% and the retail prices of consumer essentials increased 17%. Retail food prices increased 31%. Fats and oils doubled. Soap rose 62%; coffee, about 50%; bread, 25%; meat, 60%.

Profits, with the elimination of the excess profits tax swelling the take, increased even more rapidly than prices. Corporate profits *after taxes* for 1946 as a whole were 12 billion dollars, one-third higher than in 1945. By the last quarter of 1946, the rate had risen to over 14 billions a year. During the first quarter of this year corporate profits after taxes were running around 16 billion dollars on an annual basis. At this rate, current corporate profits are about 60% above the wartime peak of 9.9 billion dollars in 1943; are almost double the previous peacetime high of 8.3 billions in 1929; are approximately four times greater than the average prewar profit rate of 1936–1939.

The National City Bank of New York has reported that 1511 manufacturing corporations had profits after taxes in 1946 that were 36.5% higher than in 1945.



The diagram above is a picture of a deflationary gap — what happens when the money that consumers have to spend (after taxes) falls short of production of goods and services. When the deflationary gap is great, depression is in the making.

According to this survey, 23 baking corporations increased their 1946 profits by more than 100% compared with 1945. The return on their net worth was 21.8%.

Sixteen dairy product companies increased their profits by 68%. The return on their net worth was 18.9%.

Forty-six cotton goods corporations almost quadrupled their profits. The return on net worth was 27.1%.

Thirteen silk and rayon companies about tripled their profits. The return on their net worth was 24.5%.

Thirty-one clothing and apparel firms more than tripled their profits. The return on net worth was 23.3%.

These returns on net worth were something like four times higher than the average return on net worth of all manufacturing industries in prewar 1936–1939.

As for the consuming public — by the end of 1946 it was buying 7% less goods and paying 14% more in dollars for them than at the beginning of the year.

☛ Warning: savings

Inflationary living costs have sharply reduced the volume of national savings. Total savings of individuals in 1946 were 19 billion dollars, compared with 33 billions in 1945. In the first quarter of this year the annual rate of savings declined to 16 billion dollars.

The decline becomes more striking when it is analyzed in relation to total consumer disposable income (after payment of income taxes). In 1944, individual savings were more than 28% of disposable income. By 1946 the ratio had dropped to 12%. During the first quarter of 1947 the ratio had fallen to about 10%.

The inflationary drain on savings is reflected in the purchase and redemption of War Bonds. In 1946 redemptions of Series E — the small denominations purchased primarily by families with incomes under $5000 a year — exceeded purchases by 500 million dollars. By contrast, the sales of the larger denominations — Series F and G — exceeded redemptions by more than 2 billion dollars.

Sharp food price increases caused a decline in consumption, frequently at the expense of the health standards of low- and fixed-income families. In the Spring of this year, the physical volume of food sales was about 8% below the level of the same period in the previous year. Fluid milk consumption was down by more than 10%.

Taking all these things together, it would seem that capacity operations were used by big business to increase profits, not to hold prices down or to reduce them. And the result of this profiteering spree, in the careful words of President Truman, is that "the economic skies are not entirely clear. One cloud is shadowing our economic future. That cloud is caused by the sharp and rapid rise in prices."

Even the head of the NAM has finally admitted that prices are too high and that, unless the price spiral is halted, "the nation's economy is in for a most awful bust." But the NAM has failed to point out that prices are out of line because profits have run away. Profits are taking a disproportionate share of the national income; and the disproportion has created the large gap that now exists between production and purchasing power.

Last year, purchasing power declined markedly due to inflationary price increases and a drop in wages and salaries. Total wages and salaries in 1946 were 109.8 billion dollars compared with 114.5 billions in 1945. Adjusted for price increases, the purchasing power of wages and salaries declined by more than 12% last year. The gap between the production of goods and services at current prices and the disposable income (after taxes) of consumers in the first quarter of 1947 figured out to about 30 billion dollars on an annual basis.

A number of abnormal factors covered this gap and sustained production in 1946 and the first part of 1947. These included business purchases to replenish inventories and fill supply pipelines; business investment in new plant and equipment; and the use of wartime savings and consumer credit. But production cannot be held up very much longer on the basis of these abnormal demands. Inventory pipelines are starting to spill over. The postwar re-tooling job has been largely completed. Inflationary building costs are already cutting into construction. Finally, many families have exhausted their savings and the further extension of consumer credit cannot make good the loss of purchasing power caused by the rise in living costs.

Voluntary price reductions

An over-all decrease in consumer and business demand is therefore to be expected. At the same time, total output is increasing due largely to a rise in labor productivity. The interaction of these trends will tend to throw the economy into a tailspin. Recognition of this prospect — although belatedly — made the Government start its campaign of "moral persuasion" to bring prices down in an effort to head off a depression. Thus, President Truman has criticized "the kind of selfishness which is now expressed in the form of unnecessarily high prices for many commodities and for many manufactured articles. These prices must be brought down if our economy is not to suffer."

The President appealed to business and industry to reduce high prices, pointing out that "a profound moral responsibility rests upon those citizens whose decisions have widespread effect on our markets — to put it simply, the responsibility of playing fair, of not going whole hog for profits. The alternative is inflation, industry priced out of the market, and eventually, men priced out of their jobs."

Past experience — as in 1919–1921 — demonstrates that voluntary price cuts are always too little and too late. Business generally waits another quarter or month to put the last squeeze on the market, and then suddenly finds that price reductions are no longer a matter of choice, but of necessity. By that time — depression.

Business finds excuses

This time business and its spokesmen have displayed a conspicuous disinterest in the appeals directed at them by Washington. They simply find new excuses for not reducing prices, pointing — for instance — to the round of wage increases made during April in the basic industries such as electrical manufacturing, steel and automobiles. But these increases amounted to only about 10%–12% and raised production costs by only 2%–3%. They will be easily absorbed and do not prevent price reductions.

Moreover, the latest wage increases will not close the gap between production and available purchasing power. Even if all wage and salary earners received a similar increase of about 10% — which is very improbable — the gap between consumer disposable income and the output of goods and services at current prices would still be something like 20 billion dollars. To bridge the gap, substantial and speedy price cuts are essential. But big business, which first destroyed price control, and then exercised its veto power on the law of supply and demand, has clearly shown that it has no intention of yielding to "moral persuasion."

In the absence of a concrete program, the country will continue drifting towards a depression even though the Government increases its warnings and appeals for voluntary action to reduce prices. The pattern of 1919–1921 is being retraced.

President Truman has described how the high-price formula worked after the first World War: "Between 1920 and 1921, annual national income fell by 18 billion dollars. Industrial production dropped 23%. Unemployment increased by more than 4 million. Business failures more than doubled. Farm losses were appalling."

But many business spokesmen argue that prices are not really out of line now because the national income is so high. President Truman gave the following reply:

"I reject this argument. It provides no answer to those living on fixed incomes, such as teachers, civil servants, and widows. It provides no answer to those veterans who must pay substantially more for houses than they are able to afford. It provides no answer to many millions of American families in every city, town and rural area. Because of high prices, too many of these families are spending their meager savings and cashing their War Bonds. They are postponing necessary medical care. They have gone into debt in an amount 50% greater than a year ago."

Another business argument is that high food prices come from the Government's price-support program. But of the major foods, potatoes are the only crop being supported by the Government at 90% of parity. The support price of wheat is $1.82 a bushel, yet it hit $3 last March and the recent price has been around $2.50. Similarly, the support price of hogs is $14.94 a hundred pounds, while the recent price has been in the neighborhood of $25.

The favorite bogey, of course, is that higher wages caused the inflationary price increases that have occurred since June, 1946. But government statistics show that average wholesale prices of all industrial products rose about 26% in the 9 months following the lapse of price control, while wages in the manufacturing industries went up around 5%.

In the closing months of 1946, reduced expenditures for nonessentials hit luxury products. During the first quarter of this year, unit sales of merchandise dropped steadily, bringing post-Easter clearance sales and markdowns. By the second quarter, consumer resistance was being felt in the housing field and some durable goods. And in April, for the first time since February, 1946, over-all volume of industrial production declined.

Commenting on these developments, the *Journal of Commerce* stated: "The business recession is here. It is too late to talk about a probable or coming recession. Evidence is clear that a decline in production is taking place . . . this (initial) business setback will be small. But the significant point is that the trend has changed."

Warning: unemployment

During the war unemployment was scaled down to below one million. Current unemployment is well over 2 million. Government studies indicate it may reach 5 to 6 million by the end of 1947, if the inflationary boom is punctured during the second half of this year.

The recent seasonal job rise in farm work, food processing, etc., has diverted attention from the fact that in some industries unemployment is increasing as retrenchment gets under way. The United States Employment Service points out that "the general appearance of stability obscures a fundamental change in the national labor market . . . the current price level is beginning to affect purchasing even in fields such as construction, where large backlogs exist. As a result, employers in many industries are now limiting hiring primarily to replacement and seasonal purposes. . . ."

In the face of overloaded inventories and the shrinking demand of consumers who have been priced out of the market, the spotty joblessness now present can quickly develop into large-scale unemployment. That is what happened in the 1920–1921 depression.

Bread & Butter Notes

Living Standards

Some 70% of families in the United States earn less than $58 a week. As against this, the Heller Committee of the University of California — the recognized authority on family budgets — found (in September, 1946) that a worker's family of 4 including 2 children needed $68.77 a week for a "healthful and reasonably" comfortable standard of living.

From September, 1946, to March, 1947, living costs went up 7%. If the Heller Budget is adjusted for this increase, the amount now required is about $73.50 a week. This budget is a relatively modest one, providing for rent of no more than $35 a month and making no allowance for savings except for the payment of a life insurance premium. The weekly budget requirement has risen more than 70% since 1941, when it was $42.80.

In 1941, the average weekly wage of a factory worker was $29.11, so that the weekly deficit was $13.69. Latest available figures show average weekly wages were about $47 in March, 1947, so that the deficit has increased to around $26.50. Inflationary living costs have thus almost doubled the weekly deficit between earnings and the amount required to maintain a standard of living at a level of health and decency.

Phony Rent Control

The House of Representatives has approved the continuation of rent control, but there are enough jokers in the measure to make it largely ineffective if it should be enacted in its present form. Under the terms of the House bill, rent control would be maintained on the statute books until at least the end of the year. If the President by December 15th should make a finding that the continuation of rent control was necessary, the statute would then be extended to March 15, 1948, without further congressional action.

But tenants would get little protection from the measure. New rental dwelling units would be decontrolled immediately upon enactment of the bill. And that would lead to rent increases for new units, which would create irresistible pressure for general increases in the rents of existing rental housing. The creation of a major gap in the rent line would soon lead to the collapse of rent control, just as surely as the decontrol of meats and other foods brought general abandonment of price control.

The House measure would also permit landlords to raise rents 15% if, together with their tenants, they agreed to leases running to or beyond December 31, 1948. The way in which unscrupulous landlords could use this provision as a club, by threatening larger increases or eviction proceedings when rent control expired, needs no elaboration. Not many tenants could stand up against such pressure, since they would not know how long rent control would continue.

Finally, the House measure cripples the present protection against evictions. Tenants would have to resort to the courts to defend themselves against illegal rent rises or unwarranted evictions. With the courts swamped with cases, most tenants would have neither the means nor the time to fight back effectively.

It is doubtful that rent control would remain for very long even on the statute books. The House measure would give the governing body in any county, city or town the authority to abolish rent control at its discretion by declaring that the necessity for continuing it no longer existed. Organized pressure by landlords would bring speedy decontrol in many areas. And in turn, the end of rent control in any given community would set a precedent for decontrol in the surrounding regions.

With the acute shortage of housing still unrelieved, the House bill would be a grim joke indeed for many Americans. The way to protect millions of families from evictions and rent increases remains what it has been: to extend rent control without any amendments until at least June 30, 1948.

Railroads: Trust and Lobby

The Government has finally started its antitrust suit against the Association of American Railroads and other financial and railway interests. They have been charged with "the most far-reaching concentration of monopoly power known to law." Included among the defendants are 47 western railroads, the Western Association of Railway Executives, J. P. Morgan and Company, Kuhn, Loeb and Company, and 89 officials of railroads and railway associations.

In presenting its case, the Government charged "a broad and continuous combination and conspiracy in violation of the Sherman Act." The Government's complaint stated that the defendants conspired to maintain noncompetitive rates, suppressed competitive transportation in the western areas of the United States, and prevented western railroads from reducing rates and improving services.

The railroad lobby is attempting to prevent antitrust suits of this type through enactment of the Bulwinkle bill, which would give railroads immunity from antitrust prosecution. The Senate version of this legislation — the Reed bill — has already been approved by the Interstate and Foreign Commerce Committee. If the Reed bill and its House counterpart are enacted by Congress, a dangerous precedent will be established for by-passing the antitrust laws and legalizing monopolistic practices in various major sectors of the economy.

Notes on the New Records

CU's record consultant passes judgment on some of the new releases of both major and independent companies

BACH: Unaccompanied Violin Sonata No. 2 in A Minor. Ruggiero Ricci. *Vox* Album 187 (two 12-inch vinylite records), $5. ¶ Once a famed violin prodigy, Mr. Ricci now emerges as a mature concert artist. He performs this exacting unaccompanied violin masterpiece not only with style and accuracy, but with vitality and feeling. The recording is fine and the vinylite surfaces an unalloyed blessing.

BEETHOVEN: Piano Sonata in C Minor, Op. 13 ("Pathetique"). Artur Rubinstein. *Victor* Album M-1102 (two 12-inch records), $2.85. ¶ Remembering Rubinstein's memorable recording of the Beethoven Appassionata, we expected an ultra-dramatic treatment of this. However, except for the slow movement, Mr. Rubinstein's Pathetique impressed us as being rather fussy and detached. In addition, the recording is somewhat thin and harsh. *Columbia's* recent version by Rudolph Serkin makes a more ingratiating impression.

BEETHOVEN: Piano Sonata in C-sharp Minor, Op. 27, No. 2 ("Moonlight"). Vladimir Horowitz. *Victor* Album M-1115 (two 12-inch records), $2.85. ¶ There is fine control and gradation here, but not much warmth, and — in the scherzo — absolutely no humor. For the most part the recording is good.

BRAHMS: Sonata in F Minor, Op. 120, No. 1. William Primrose (viola) with William Kapell at the piano. *Victor* Album M-1106, (three 12-inch records), $3.85. ¶ Brahms originally intended this Sonata for clarinet and piano, but provided an alternate part for viola. Certainly the dusky romanticism of the piece emerges vividly on strings. Young William Kapell does a virile and rhythmically vital job, and both artists are given clear and open-sounding reproduction.

GOULD: Music of Morton Gould. Robin Hood Dell Orchestra under Morton Gould. *Columbia* Album M-668 (four 12-inch records), $5. ¶ Mr. Gould offers his "Cowboy Rhapsody," "New China March," "Red Cavalry March," "American Salute," and two Negro spiritual arrangements for strings: "Go Down Moses" and "Sometimes I Feel Like a Motherless Child." The "Cowboy Rhapsody" seems a little long and diffuse, but the others are highly effective. Playing and recording are acceptable, but could do with a lot more zip and clarity.

ITALIAN OPERATIC ARIAS: Helen Traubel (soprano) with Orchestra under Charles O'Connell. *Columbia* Album M-674 (three 12-inch records), $4. Contents include "Ritorna vincitor" from Verdi's Aïda; the "Ave Maria" from the same composer's Otello; "Or, sai chi l'onore" from Mozart's Don Giovanni; "Vissi d'arte" from Puccini's Tosca; "Suicidio" from Ponchielli's La Gioconda and "Voi lo sapete" from Mascagni's Cavalleria Rusticana. ¶ Helen Traubel sings Italian opera extremely well . . . for a Wagnerian specialist. She is never less than competent vocally, but most of the time is unable to master Italian repertoire's special lyrico-dramatic style. She comes closest to the mark in "Suicidio" and, "Voi lo sapete." Otherwise, she is outclassed by competitive recordings. Reproduction and balance between voice and orchestra are acceptable.

MENDELSSOHN: Symphony No. 5 in D Major, Op. 107 ("Reformation"). London Philharmonic Orchestra under Sir Thomas Beecham. *Victor* Album M-1104 (four 12-inch records), $4.85. ¶ The middle movements of this Symphony are among Mendelssohn's finest inspirations, but the more pretentious first and last have their dull moments. However, the indefatigable Sir Thomas Beecham makes the whole Reformation Symphony an exciting experience. All the elegance and verve of Beecham at his best comes through in the orchestral playing. The recording is flawless.

MOZART: Quartet No. 2 in E-flat for Piano and Strings (K. 493). George Szell with Members of the Budapest String Quartet. *Columbia* Album M-669 (three 12-inch records), $4. ¶ In contrast to its earlier companion-piece in G Minor, this Quartet is, for the most part, serene and untroubled music; certainly one of the gems of the chamber music repertoire. George Szell, famed as a conductor, proves to be a first-rate chamber musician, too. Joseph Roisman, Boris Kroyt and Mischa Schneider of the Budapest String Quartet turn out a beautiful reading of this score. The recording could be a little more open and resonant in sound, but in general is perfectly acceptable.

A NIGHT AT CARNEGIE HALL: Lily Pons (soprano), Risë Stevens (mezzo-soprano), Ezio Pinza (bass) with various orchestras. *Columbia* Album M-676 (three 12-inch records), $4. ¶ Issued to coincide with the film, "Carnegie Hall," this album features a miscellany of operatic highlights sung by the featured artists in that picture. Lily Pons sings the "Bell Song" from Delibes' Lakmé; Risë Stevens, "My Heart at Thy Sweet Voice" from Saint-Saens' Samson et Dalila, as well as "Seguidilla" from Bizet's Carmen sung with Raoul Jobin; Ezio Pinza, the "Il lacerato spirito" from Verdi's Simon Boccanegra and two excerpts from Mozart's Don Giovanni: "Deh vieni all finestra" and "Finch'han dal vino," the latter with Rosa Linda at the piano. Aside from the unfortunate results of Don Giovanni singing his "Champagne Aria" with piano, this set is a generally enjoyable one for those who want their recorded opera in potpourri form. Pinza makes the most impressive showing.

ORATORIO ARIAS: Norman Cordon (bass-baritone) with RCA Victor Orchestra under Sylvan Levin. *Victor* Album M-1094 (three 12-inch records), $3.85. Contents include "Why Do the Nations Rage" from Handel's Messiah; "Now Heaven in Fullest Glory Shone" from The Creation of Haydn; "Give Me Back My Lord" from the Bach St. Matthew Passion; "O God, Have Mercy upon Me" from Mendelssohn's St. Paul and "Lord God of Abraham" and "It Is Enough" from the same composer's Elijah. ¶ Mr. Cordon's musical intentions are of the best, but in most instances he lacks the vocal control necessary for really effective performance of the extremely difficult Bach and Handel pieces. His enunciation, too, leaves a good deal to be desired. Most fortunate are the Haydn aria, the St. Paul excerpt and "It Is Enough." The orchestral accompaniments are competent and the recording is good, but on the whole we recommend this only for those who want the music regardless of performance.

PROKOFIEFF: Piano Concerto No. 3 in C Major, Op. 26. Dimitri Mitropoulos with the Robin Hood Dell Orchestra of Philadelphia. *Columbia* Album M-667 (three 12-inch records), $4. ¶ This youthful work of Prokofieff is a brilliant virtuoso vehicle, exploiting episodes that are by turns irreverently sarcastic and unabashedly romantic. Mitropoulos, a first-rate pianist and top-rank conductor, has made a hit with this score in public, but it doesn't come off so well on records, due to faulty tonal balance that favors the piano unduly, and to muddy-sounding recording. The composer's own *Victor* recording is a preferable choice.

SINIGAGLIA: Danza Piedmontese in A, Op. 31, No. 1. Boston "Pops" Orchestra under Arthur Fiedler. *Victor* 11-9446, $1. ¶ Charming, though not very distinctive, music in a folky vein from the pen of the Italian contemporary, Leone Sinigaglia. Performance and recordings are of the dependably good quality we've come to expect from Fiedler and his Boston players.

STRAVINSKY: "Fireworks," and **FAURÉ:** "Sicilienne" from Incidental Music for Pelleas et Melisande. Chicago Symphony Orchestra under Desire Defauw. *Victor* 11-9447, $1. ¶ The exuberant early Stravinsky opus and the sweetly sad Fauré number provide the sharpest possible listening contrast. Both fall well on the ear, and the Stravinsky "Fireworks" comes off brilliantly. However, the conductor might well have chosen a somewhat slower tempo for the "Sicilienne." The recording in both instances is reverberant, but good in sound.

CU's Movie Poll

To help *Reports* readers get "Best Buys" for their movie money, CU presents ratings made up with the aid of some 2000 subscribers, most of them group leaders and members of CU's National Advisory Committee. Each participant, as soon as he sees a picture, notifies CU by special card whether he considers it "Excellent," "Good," "Fair," or "Poor." The tabulation shows the percentage of replies in each category (largest vote is in boldface). How several movie critics felt is also indicated, to the extent that various opinions can be summarized. (*CU neither selects the pictures nor makes recommendations, but simply reports the results of its poll.*)

Picture & Stars	%E	%G	%F	%P	Critics
ANGEL ON MY SHOULDER Paul Muni, Anne Baxter	23	**66**	6	6	G
BACHELOR'S DAUGHTERS Gail Russell, Adolphe Menjou	12	**45**	16	27	G
BLUE SKIES Bing Crosby, Fred Astaire	26	**45**	23	6	G
BEGINNING OR THE END Brian Donlevy, Robert Walker	23	**48**	23	6	G
BEST YEARS OF OUR LIVES Fredric March, Myrna Loy	**90**	9	1	0	E
BOOMERANG! Dana Andrews, Jane Wyatt	**78**	22	0	0	E
BRIEF ENCOUNTER Celia Johnson	**95**	0	5	0	E
CAESAR AND CLEOPATRA Claude Rains, Vivien Leigh	**54**	32	12	2	G
CALIFORNIA Barbara Stanwyck, Ray Milland	7	**51**	37	5	G
CHASE, THE Robert Cummings, Michele Morgan	6	**44**	38	12	P
DARK MIRROR Lew Ayres, Olivia de Havilland	40	**54**	4	2	G
DECEPTION Bette Davis, Paul Henreid	24	**47**	13	16	G
FARMER'S DAUGHTER Joseph Cotten, Loretta Young	40	**50**	10	0	G
HENRY V Laurence Olivier	**97**	3	0	0	E
HUMORESQUE Joan Crawford, John Garfield	**37**	33	24	6	G
I'VE ALWAYS LOVED YOU Philip Dorn, Catherine McLeod	25	**49**	17	9	G
IT'S A WONDERFUL LIFE James Stewart, Donna Reed	**70**	25	5	0	E
JOLSON STORY Larry Parkes, Evelyn Keyes	**79**	20	1	0	E
LADY IN THE LAKE Robert Montgomery, Audrey Totter	19	**54**	26	3	G
MAGNIFICENT DOLL Ginger Rogers, Burgess Meredith	**40**	21	29	10	E
MAN I LOVE Ida Lupino, Robert Alda	4	37	**41**	18	P
MARGIE Jeanne Crain, Alan Young	37	**55**	8	0	G
MY DARLING CLEMENTINE Linda Darnell, Victor Mature	13	**58**	21	8	G
MY FAVORITE BRUNETTE Dorothy Lamour, Bob Hope	15	**67**	18	0	G
NORA PRENTISS Ann Sheridan, Kent Smith	**42**	36	20	2	G
NOTORIOUS Ingrid Bergman, Cary Grant	34	**50**	13	3	G
NOTORIOUS GENTLEMAN Rex Harrison, Lilli Palmer	20	**40**	20	10	E
OPEN CITY Aldo Fabrizi, Anna Magnani	**73**	27	0	0	E
RAZOR'S EDGE Tyrone Power, Gene Tierney	**37**	35	22	6	G
RETURN OF MONTE CRISTO Louis Hayward, Louise Britton	12	**48**	32	8	G
SECRET HEART, THE Claudette Colbert, Walter Pidgeon	26	**52**	19	3	G
SHOCKING MISS PILGRIM Betty Grable, Dick Haymes	0	36	**53**	11	G
SHOW-OFF, THE Red Skelton, Marilyn Maxwell	4	**39**	34	23	G
SINBAD THE SAILOR Maureen O'Hara, Douglas Fairbanks, Jr.	9	**58**	33	0	G
SONG OF THE SOUTH Cartoon-Live Action	**45**	40	13	2	E
STAIRWAY TO HEAVEN David Niven, Kim Hunter	**67**	25	0	8	G
STRANGE WOMAN, THE Hedy Lamarr, George Sanders	9	**59**	23	9	G
13 RUE MADELEINE James Cagney, Annabella	34	**49**	15	2	G
TILL THE CLOUDS ROLL BY Judy Garland, Robert Walker	25	**53**	20	2	G
TWO YEARS BEFORE THE MAST Alan Ladd, William Bendix	**28**	**28**	24	20	G
UNDERCURRENT Katharine Hepburn, Robert Taylor	**44**	26	24	6	F
VERDICT, THE Sidney Greenstreet, Peter Lorre	18	**57**	2	4	G
WELLDIGGER'S DAUGHTER Raimu, Fernandel	**69**	31	0	0	E

Too new for ratings

Forthcoming issues of the *Reports* will carry ratings by CU subscribers: until then, here is how the critics scored them:

Picture & Stars	*Critics' Opinions*
CALCUTTA — Alan Ladd, William Bendix	F
CARNEGIE HALL — All-Star musical cast	FG
CHILDREN OF PARADISE — (French) Barrault, Arletty	G
DUEL IN THE SUN — Gregory Peck, Jennifer Jones	FG
EGG AND I — Fred MacMurray, Claudette Colbert	FG
LATE GEORGE APLEY, THE — Ronald Colman, Peggy Cummins	G
MONSIEUR VERDOUX — Charles Chaplin	GE
MACOMBER AFFAIR, THE — Gregory Peck, Joan Bennett	G
ODD MAN OUT — James Mason	GE
SEA OF GRASS — Spencer Tracy, Katharine Hepburn	GE
SMASH-UP — Susan Hayward, Lee Bowman	G

Older but still active

These releases may still be showing in your community; here is how CU subscribers have rated them in the past:

Picture & Stars	*% Rating*
COCKEYED MIRACLE — Frank Morgan, Keenan Wynn	60 G
CRACK-UP — Pat O'Brien, Claire Trevor	58 F
KILLERS, THE — Ava Gardner, Burt Lancaster	50 G
NIGHT AND DAY — Alexis Smith, Cary Grant	41 E, 41 G
NOBODY LIVES FOREVER — Geraldine Fitzgerald, John Garfield	50 G
NO LEAVE, NO LOVE — Van Johnson, Pat Kirkwood	47 G
NOCTURNE — Lynn Bari, George Raft	48 F
PLAINSMAN AND THE LADY — William Elliot, Vera Ralston	44 P
SISTER KENNY — Rosalind Russell, Alexander Knox	56 E
SWEETHEART OF SIGMA CHI — Phil Regan, Elyse Knox	53 P
THE TIME, THE PLACE, AND THE GIRL — Dennis Morgan, Janis Paige	56 G

for the people

▶ *The following recent actions were taken by the Federal Trade Commission:*

Cello-Nu, Cello-Plastic

Cello-Plastic, Plasti-Cote and *Cello-Nu*, according to the FTC, have at least two things in common: they are not plastics and they do not possess the characteristics of cellophane.

Cello-Plastic is manufactured by Bertram A. Unger, trading as Cello-Plastic Chemical Co. in Pittsburgh. One of his sons, Paul Unger, trades as Cello-Nu Products, and the other son, Ervin Unger, trades as Perma-Plastic Products. All represent that their paints and varnishes are startling, new discoveries in liquid plastics, that they finish surfaces with a plastic coating and outwear wax surfaces 200 to 1. Complaints have been brought against all three.

The complaint against Bertram Unger alleges that he has falsely represented, among other things, that *Cello-Plastic* floor finish creates a tough, cellophane-like finish which is resistant to cigarette burns, alcohol, grease, boiling water and lye; that *Cello-Plastic Waterproof Paint* is an effective waterproofer under all conditions; that *Cello-Plastic Enamel* finishes tile walls and woodwork like porcelain and is waterproof and abrasion resistant. These claims, the FTC says, are misleading and deceptive.

Paul Unger sells paints and varnishes under the names, *Plasti-Cote* and *Cello-Nu*, and his brother, Ervin Unger, distributes similar products under the names *Perma-Plastic Coatings, Perma-Transparent, Perma-Tile*, etc. The complaints involving these are similar to those against their father.

Knapp-Monarch

Knapp-Monarch Co., well-known electrical appliance manufacturer, has been added to the list of companies that have been charged with the false advertising of insecticide bombs (see *Reports*, March, 1947).

The Knapp-Monarch Co. agreed with the FTC that its claims were misleading, and promised to stop making further misrepresentations. It agreed to stop representing in any way that its insecticide spray, when released in a room for a period of 4 seconds, is effective against all insects, or against such crawling insects as roaches, ants and silverfish; or that it will reach into every nook, cranny, crack, and crevice and kill insects lurking in such spaces.

▶ *The following actions were taken by the Food & Drug Administration involving some of the better-known manufacturers of foods and drugs:*

Rockwood and Co.

The Food & Drug Administration charged that 15,600 pounds of chocolate, shipped from Chicago to Davenport, Iowa, by Rockwood and Co., contained insect excreta, beetles, larvae and webbing. The shipment consisted of 78 bales, each containing twenty 10-pound blocks of cake chocolate.

The Government charged that the chocolate consisted in whole or in part of a filthy substance. As a result, the product was released under bond to be made usable by cutting off and destroying the unfit portions.

Clapp's Baby Foods

For the second time, the Food & Drug Administration charged that shipments of *Clapp's Strained Peas* were short weight. This time 2100 cans shipped to Minneapolis and 2328 cans shipped to Pittsburgh were found to contain less than the 5 ounces labeled.

The Government charged misbranding and the baby food was sent to charitable institutions for use.

Swift and Co.

Frozen eggs for commercial use, shipped by Swift and Co. were found to be decomposed, according to charges by the Food & Drug Administration. More than 5000 pounds of eggs, labeled *Gold Crest Frozen Eggs*, had been shipped from Chambersburg, Pa., to Baltimore.

Swift and Co. agreed that the unfit portion of the product be sold on condition that the purchaser separate the decomposed portions from the good. The Food and Drug Administration supervised the separation.

Defective prophylactics

In 8 different cities more than 250,000 prophylactics were ordered destroyed because examination of samples showed that many contained holes. They were packaged under the brand names, *Xcello's Prophylactics* and *Silver-Tex Prophylactics*.

The Food & Drug Administration claimed that "the label statement 'Prophylactics' was false and misleading as applied to an article containing holes."

Armour and Co.

Armour and Co., meat packers, who manufacture drugs under the name Armour Laboratories, pleaded guilty to misbranding two drug items: *Folestrin Suppositories* and *Pituitary Liquid*. The company was fined $1000 and costs.

The Government charged that Armour and Co., trading as Armour Laboratories, claimed on the label that *Folestrin Suppositories* contained 2000 International Units of estrone when, in fact, each suppository contained not more than 500 International Units of estrone.

Cumulative Index

—Each issue of the reports contains this cumulative index of principal subjects covered since publication of the 1947 Buying Guide issue. By supplementing the Buying Guide index with this one, readers can quickly locate current material and keep abreast of changes resulting from new tests. Page numbers run consecutively beginning with the January 1947 issue: Jan. 1–28, Feb. 29–56, Mar. 57–84, Apr. 85–132, May 133–180, June 181–228.

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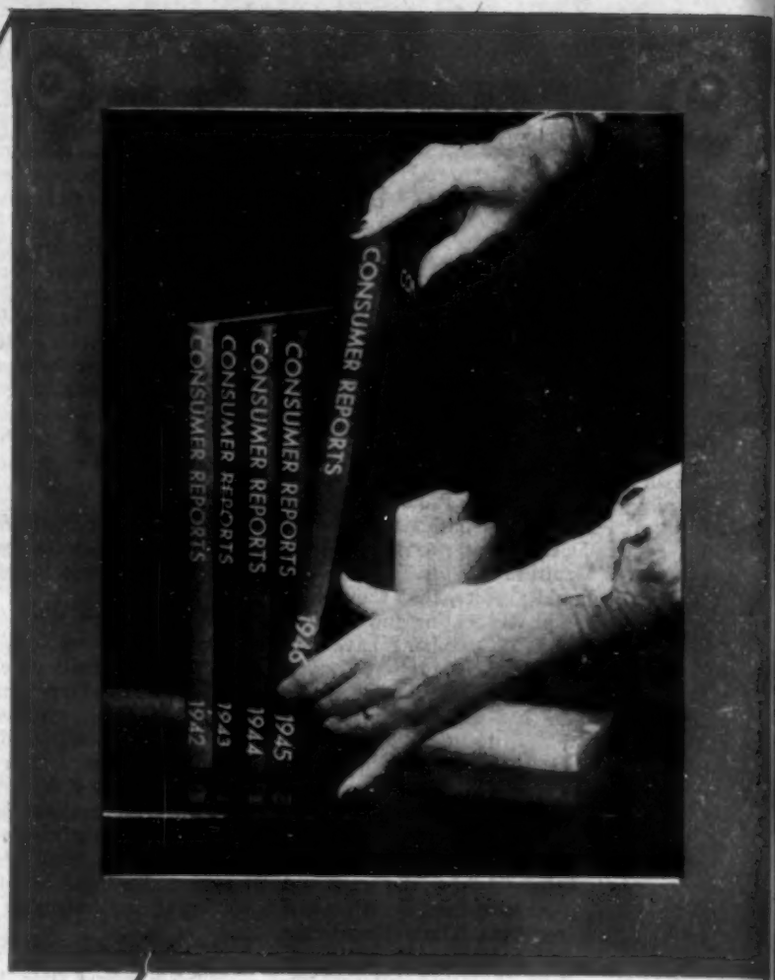

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